INVENTOR SEARCH

=> fil capl; d que nos l15
FILE 'CAPLUS' ENTERED AT 15:58:42 ON 19 OCT 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 19 Oct 2006 VOL 145 ISS 17
FILE LAST UPDATED: 18 Oct 2006 (20061018/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

Search 1 of 3 and Search 2 of 3

L13 296 SEA FILE=CAPLUS ABB=ON NISHITANI Y?/AU
L14 417 SEA FILE=CAPLUS ABB=ON YAMANO Y?/AU
L15 1 SEA FILE=CAPLUS ABB=ON L13 AND L14

=> d ibib ed abs hitstr l15

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:757715 CAPLUS Full-text
DOCUMENT NUMBER: 139:261088
TITLE: Preparation of broad-spectrum cephem compounds
INVENTOR(S): **Nishitani, Yasuhiro; Yamano, Yoshinori**
PATENT ASSIGNEE(S): Shionogi & Co., Ltd., Japan
SOURCE: PCT Int. Appl., 209 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003078440	A1	20030925	WO 2003-JP3249	20030318

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

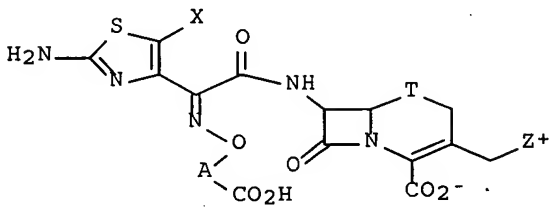
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2479354	AA	20030925	CA 2003-2479354		20030318
AU 2003221080	A1	20030929	AU 2003-221080		20030318
EP 1489084	A1	20041222	EP 2003-712748		20030318
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
BR 2003008492	A	20050503	BR 2003-8492		20030318
US 2005153950	A1	20050714	US 2003-507502		20030318
CN 1653072	A	20050810	CN 2003-810969		20030318
PRIORITY APPLN. INFO.:			JP 2002-73526	A	20020318
			WO 2003-JP3249	W	20030318

OTHER SOURCE(S): MARPAT 139:261088

ED Entered STN: 26 Sep 2003

GI



I

AB Cephem compds. I (T is S, SO, or O; X is halogeno, CN, carbamoyl which may be substituted with lower alkyl, lower alkyl, lower alkoxy, or lower alkylthio; A is substituted lower alkylene (wherein the substituent is optionally substituted mono-lower alkyl, optionally substituted lower alkylidene, or optionally substituted lower alkylene); and Z+ is an optionally substituted nitrogenous heterocyclic group having a cationic group), their ester, protected 7-aminothiazole, or pharmaceutically acceptable salts or solvates, are prepared I [X = Me, A = Me2C, T = S, Z = 1-(3-methylaminopropyl)-1H-imidazo[4,5-b]pyridinium-4-yl-] was prepared and showed antibacterial activities superior to that of ceftazidime.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

STRUCTURE SEARCH

=> fil reg; d stat que l10
FILE 'REGISTRY' ENTERED AT 15:59:14 ON 19 OCT 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 18 OCT 2006 HIGHEST RN 910777-14-9
DICTIONARY FILE UPDATES: 18 OCT 2006 HIGHEST RN 910777-14-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

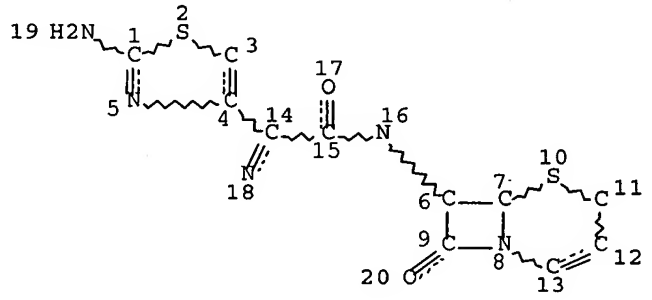
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

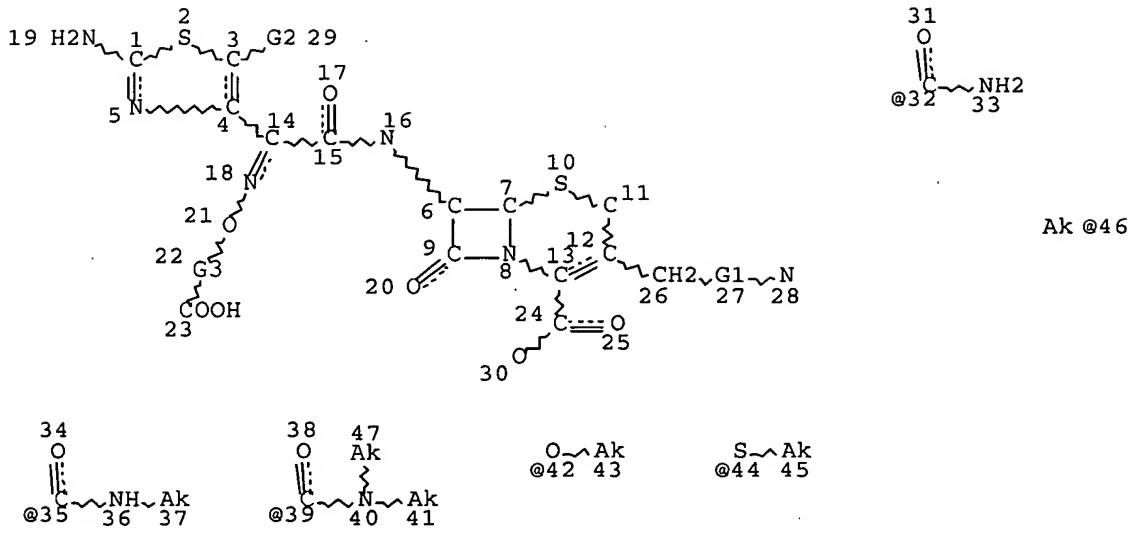
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

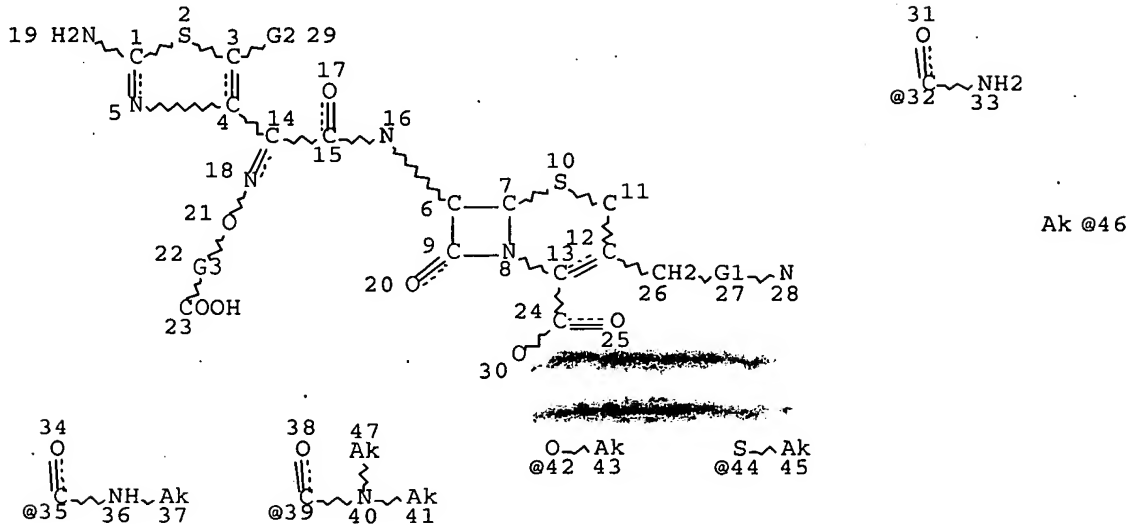
STEREO ATTRIBUTES: NONE
L3 19554 SEA FILE=REGISTRY SSS FUL L1
L6 STR



REP G1=(0-6) A
VAR G2=X/CN/32/35/39/42/44/46
REP G3=(1-6) C
NODE ATTRIBUTES:
NSPEC IS R AT 28
CONNECT IS E1 RC AT 37
CONNECT IS E1 RC AT 41
CONNECT IS E1 RC AT 43
CONNECT IS E1 RC AT 45
CONNECT IS E1 RC AT 46
CONNECT IS E1 RC AT 47
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE
L8 STR



```
REP G1=(0-6) A
VAR G2=X/CN/32/35/39/42/44/46
REP G3=(1-6) CH2
NODE ATTRIBUTES:
NSPEC   IS R      AT  28
CONNECT IS E1  RC AT  37
CONNECT IS E1  RC AT  41
CONNECT IS E1  RC AT  43
CONNECT IS E1  RC AT  45
CONNECT IS E1  RC AT  46
CONNECT IS E1  RC AT  47
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  47

STEREO ATTRIBUTES: NONE
L10          194 SEA FILE=REGISTRY SUB=L3 SSS FUL (L6 NOT L8)

100.0% PROCESSED    5029 ITERATIONS                          194 ANSWERS
SEARCH TIME: 00.00.01



=> fil capl; d que nos l11
FILE 'CAPLUS' ENTERED AT 15:59:20 ON 19 OCT 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 19 Oct 2006  VOL 145 ISS 17
FILE LAST UPDATED: 18 Oct 2006  (20061018/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE


L1              STR
L3        19554 SEA FILE=REGISTRY SSS FUL L1
L6              STR
L8              STR
L10         194 SEA FILE=REGISTRY SUB=L3 SSS FUL (L6 NOT L8)
```

L11 7 SEA FILE=CAPLUS ABB=ON L10

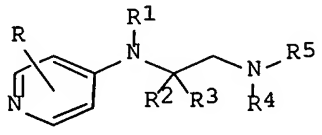
=> s l11 not l15
L17 6 L11 NOT L15

=> d ibib ed abs hitstr 1-6

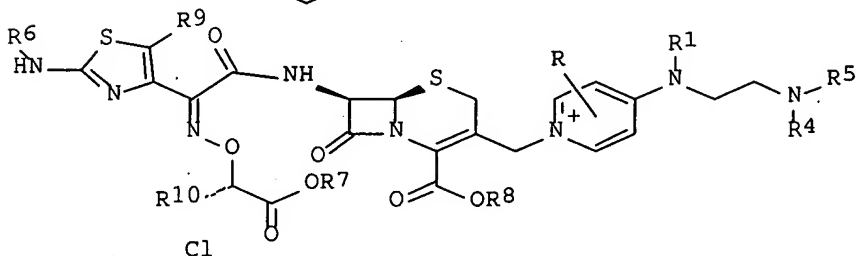
L17 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:787716 CAPLUS Full-text
DOCUMENT NUMBER: 145:210796
TITLE: Process for preparation of N-(4-pyridyl)ethylenediamine derivatives
INVENTOR(S): Shimizu, Sumio; Hakogi, Toshikazu; Tanimoto, Norihiko
PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 28pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006206529	A2	20060810	JP 2005-22598	20050131

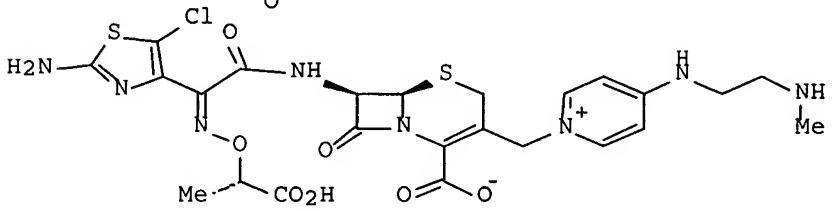
PRIORITY APPLN. INFO.: JP 2005-22598 20050131
OTHER SOURCE(S): MARPAT 145:210796
ED Entered STN: 10 Aug 2006
GI



I



II



III

AB This invention pertains to a method for producing N-(4-pyridyl)ethylenediamine derivs. with general formula of I and II•X- [wherein R = H, alkyl, or (un)substituted aralkyl; R1 = H, alkoxycarbonyl, etc.; R2 and R3 = H or =O; R4 = H, alkoxycarbonyl, etc.; R5 = alkyl, alkoxycarbonyl, etc.;

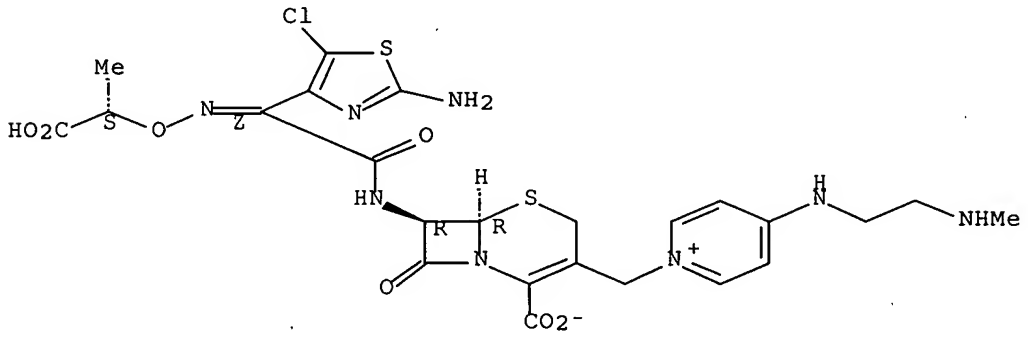
R6-R8 = independently a protecting group; R9 = H, alkyl, or halo; R10 = alkyl; X = a leaving group] or salts thereof. For example, the compound III was prepared in a multi-step synthesis in good yield.

IT **604001-47-0P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of N-(4-pyridyl)ethylenediamine derivs.)

RN 604001-47-0 CAPLUS

CN Pyridinium, 1-[[(6R,7R)-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[[(1S)-1-carboxyethoxy]imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-[[2-(methylamino)ethyl]amino]-, inner salt (9CI) (CA INDEX NAME)

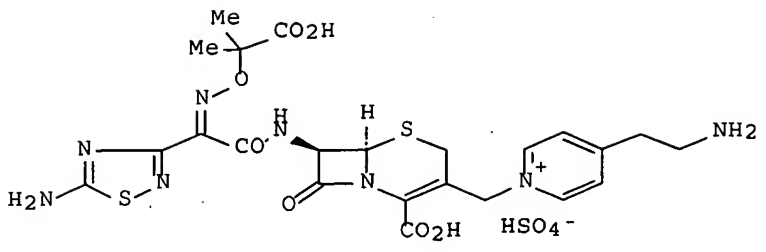
Absolute stereochemistry.
Double bond geometry as shown.



L17 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:348558 CAPLUS Full-text
DOCUMENT NUMBER: 145:7928
TITLE: Preparation of cephem compounds for use in antibacterial pharmaceutical compositions
INVENTOR(S): Okuda, Shinya; Murano, Kenji; Itoh, Kenji; Misumi, Keiji; Satoh, Kenji; Kawabata, Kohji; Toda, Ayako; Inoue, Satoshi; Ohki, Hidenori; Yamanaka, Toshio
PATENT ASSIGNEE(S): Wakunaga Pharmaceutical Co., Ltd., Japan; Astellas Pharma, Inc.
SOURCE: Aust. Pat. Appl., 96 pp.
CODEN: AUXXCM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
AU 2005202802	A1	20060112	AU 2005-202802		20050627
PRIORITY APPLN. INFO.:			AU 2004-903529	A	20040628
			AU 2004-903705	A	20040706

OTHER SOURCE(S): MARPAT 145:7928
ED Entered STN: 17 Apr 2006
GI



I

AB Cephem derivs., such as I, were prepared starting from 4-methoxybenzyl 7β-amino-3-(chloromethyl)-3-cephem-4-carboxylate hydrochloride for therapeutic use in the treatment of bacterial infections. The prepared cephems were assayed for antibacterial activity against Pseudomonas aeruginosa FP 1456.

IT **887775-87-3P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cephem compds. for use in antibacterial pharmaceutical compns.)

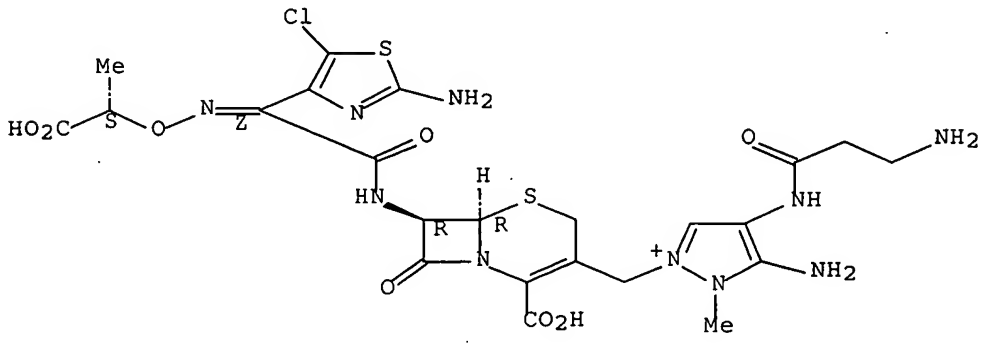
RN 887775-87-3 CAPLUS

CN 1H-Pyrazolium, 5-amino-2-[[(6R,7R)-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[[(1S)-1-carboxyethoxy]imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-[(3-amino-1-oxopropyl)amino]-1-methyl-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

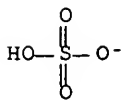
CRN 887775-86-2
CMF C23 H28 Cl N10 O8 S2

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 14996-02-2
CMF H O4 S



L17 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:58212 CAPLUS Full-text
DOCUMENT NUMBER: 142:134930
TITLE: Preparation of cross-linked glycopeptide-cephalosporin antibiotics
INVENTOR(S): Fatheree, Paul R.; Linsell, Martin S.; Marquess, Daniel; Trapp, Sean G.; Moran, Edmund J.; Aggen, James B.
PATENT ASSIGNEE(S): Theravance, Inc., USA
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005005436	A2	20050120	WO 2004-US22319	20040709
WO 2005005436	A3	20050310		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005026818	A1	20050203	US 2004-888849	20040709
US 7067482	B2	20060627		
EP 1644382	A2	20060412	EP 2004-778030	20040709
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
US 2006189517	A1	20060824	US 2006-405331	20060417

PRIORITY APPLN. INFO.:
US 2003-486484P P 20030711
US 2004-888849 A1 20040709
WO 2004-US22319 W 20040709

OTHER SOURCE(S): MARPAT 142:134930
ED Entered STN: 21 Jan 2005
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention provides cross-linked glycopeptide-cephalosporin compds. I [R is fragment II; X1, X2 are independently H or Cl; W is N or CCl; R1, R2 are independently H or alkyl; R3 is alkyl, alkoxy, halo, alkylthio, alkylsulfinyl,

alkylsulfonyl or alkoxysulfonyl which may be substituted by CO2H or F; one of R4 and R5 is H and the other is OH; R6, R7 are independently H or Me; R8 is H or 4-amino-3-hydroxy-2,4-dimethyltetrahydro- 2H-pyran-2-yl; R9 is H or (cyclo)alkyl which may be substituted by CO2H or 1-3 F atoms; n is 0-3; X is -Ra(NRbCO-Rc)0-2(CONRb'CO-Rc')0-2-, where Ra is -Y-R''; R'' contains at most 20 non-hydrogen atoms and is defined as (un)substituted alkylene, alkenylene, alkynylene, cycloalkylene, arylene, heteroarylene or heterocyclyl; Y links R to the pyridinium ring at a meta or para position and is a direct bond, NR', O, S, CO, NR'CO or CONR' (R' is H or alkyl), precluding direct bonds between heteroatoms in Y and R ; Rb, Rb' are independently H, alkyl, alkenyl or alkynyl; Rc is independently -Y'-R''-Y'-, where each Y' is independently a direct bond, O or NR', precluding direct bonds between heteroatoms in Y' and R ; Rc' is a group defined by R''] and their pharmaceutically-acceptable salts which are useful as antibiotics. The invention also provides pharmaceutical compns., methods for treating bacterial infections in a mammal, and processes and intermediates useful for preparing such compds. Thus, vancomycin hydrochloride was treated with ethylenediamine/formaldehyde and pyridinium lactam II (W is CCl, X is 4-CH2NH2, n is 0, R9 is Me) (prepared from an aminocephalosporonic ester) was amidated with adipic acid bis-HOAT ester. Coupling of the products afforded a glycopeptide-cephalosporin conjugate which showed MIC < 0.1 μg/mL for inhibition of methicillin-resistant and methicillin-susceptible S. aureus (vancomycin MIC = 2.0 and 1.0 μg/mL, resp.).

IT **827040-36-8P 827040-37-9P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

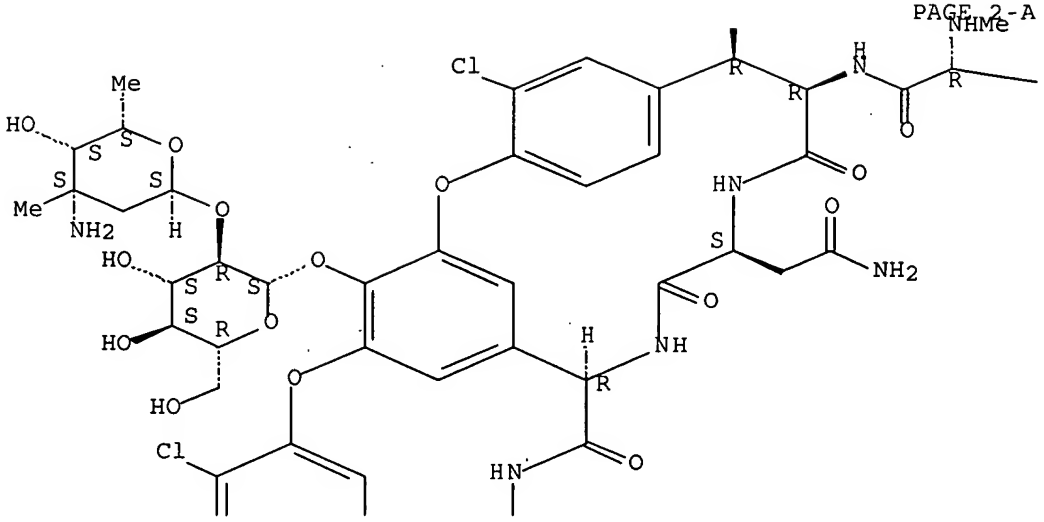
(preparation of cross-linked glycopeptide-cephalosporin antibiotics)

RN 827040-36-8 CAPLUS

CN Vancomycin, 29-[[[2-[[6-[[[1-[[(6R,7R)-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]pyridinium-4-yl]methyl]amino]-1,6-dioxohexyl]amino]ethyl]amino]methyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

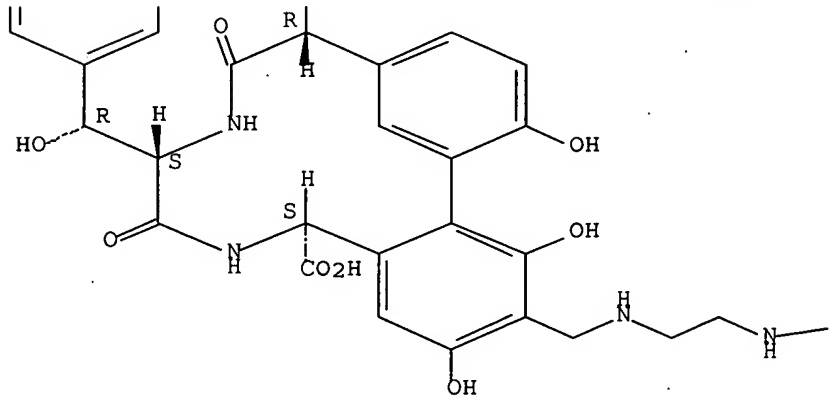
PAGE 2-A

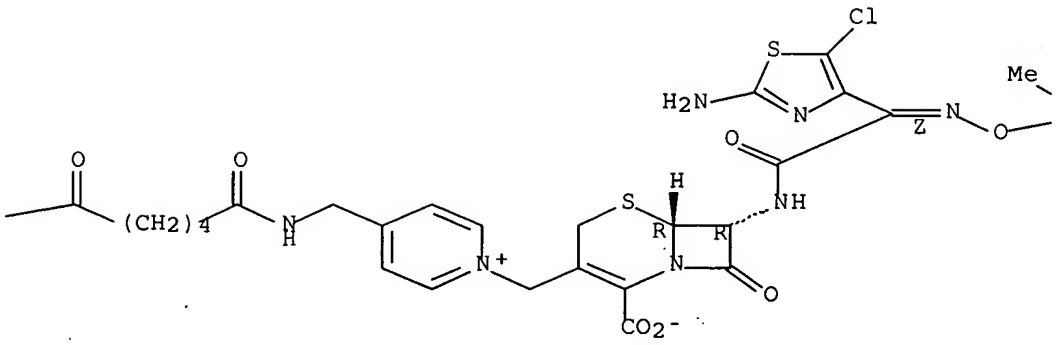


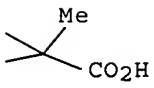
PAGE 2-B

—Bu-i

PAGE 3-A







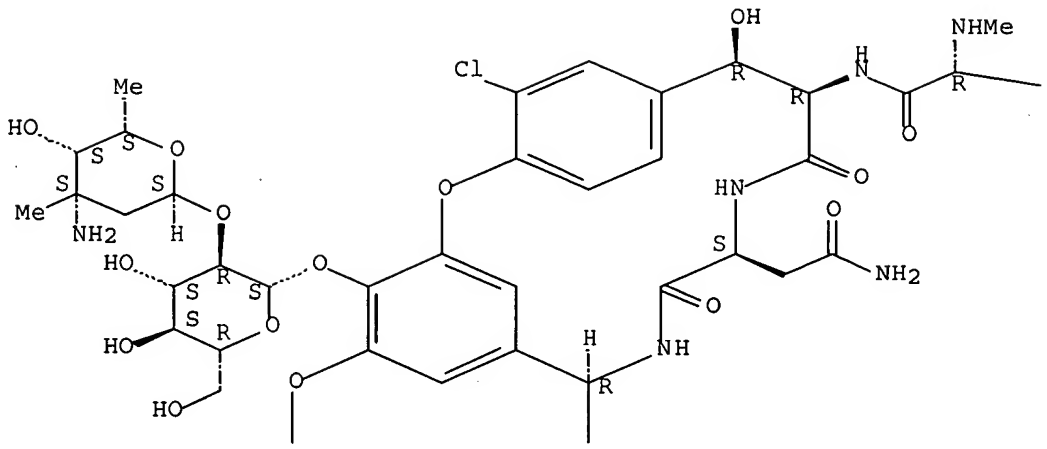
RN 827040-37-9 CAPLUS

CN Vancomycin, 29-[[[2-[[4-[[[1-[[(6R,7R)-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]pyridinium-3-yl]methyl]amino]-1,4-dioxobutyl]amino]ethyl]amino]methyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

[redacted]

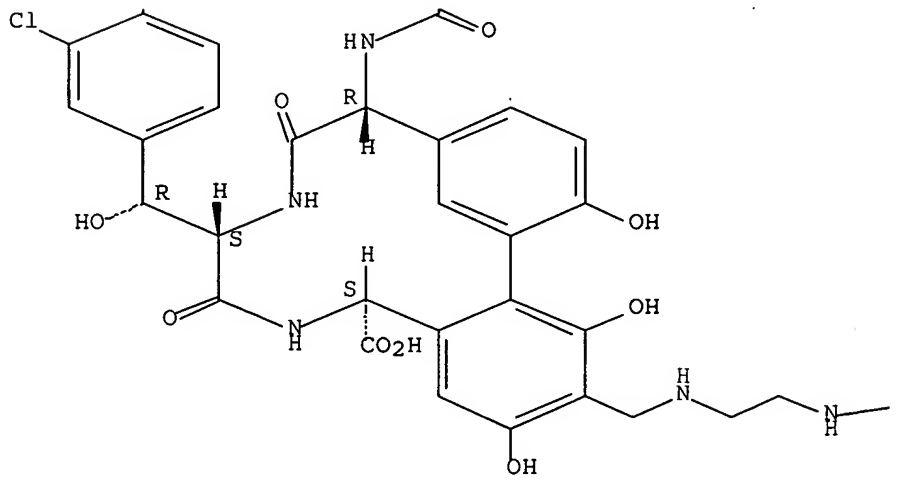
PAGE 1-A



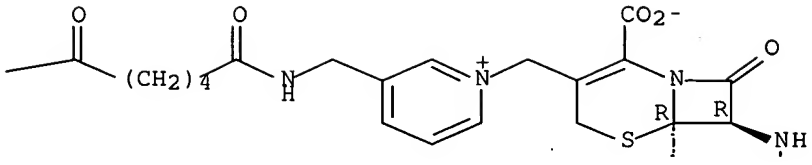
PAGE 1-B

—Bu-i

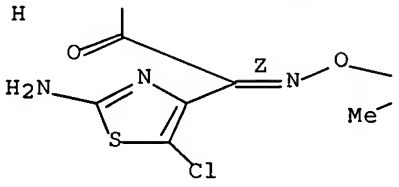
PAGE 2-A



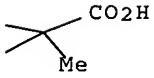
PAGE 2-B



PAGE 3-B



PAGE 3-C

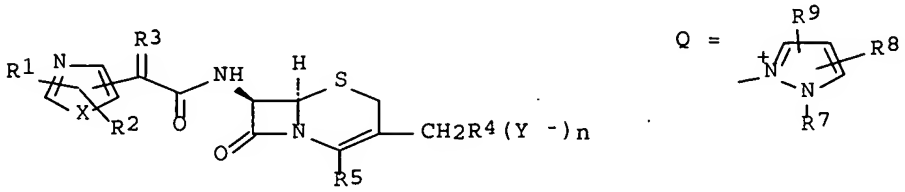


L17 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:740235 CAPLUS Full-text
DOCUMENT NUMBER: 128:13170
TITLE: 3-pyrazoliomethylcephem compounds as antimicrobial agents
INVENTOR(S): Kawabata, Kohji; Okuda, Shinya; Kishi, Kohei; Eikyu, Yoshiteru; Takasugi, Hisashi
PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9741128	A1	19971106	WO 1997-JP1416		19970424
W: AU, CA, CN, JP, KR, US					
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
AU 9724055	A1	19971119	AU 1997-24055		19970424
PRIORITY APPLN. INFO.:			AU 1996-9555	A	19960430
			WO 1997-JP1416	W	19970424

OTHER SOURCE(S): MARPAT 128:13170
ED Entered STN: 24 Nov 1997
GI



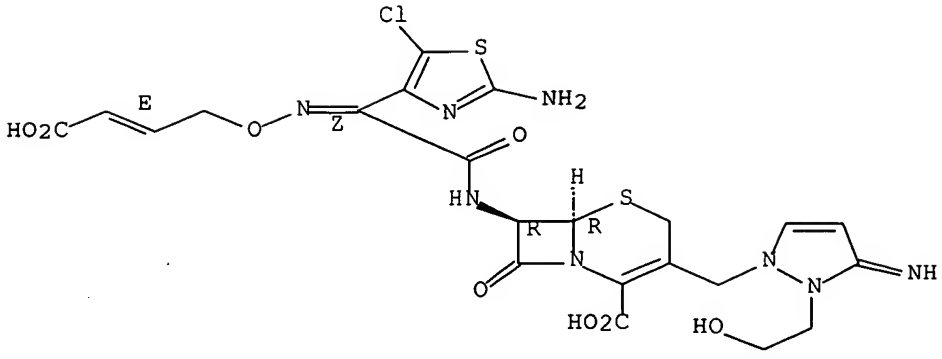
AB Synthesis of cephems (I) [R1 = (un)substituted amino; R2 = halo, alkyl, (un)substituted alkylthio; R3 = =NOR6; R4 = Q; R5 = CO2-, (un)substituted carboxy; R6 = H, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl; R7 = OH, (un)substituted O, (un)substituted alkyl; R8 = (un)substituted amino; R9 = H, alkyl, heterocycle; X = S, O; Y = anion; n = 0, 1] and suitable salts is described. Thus, I (R1 = NH2, R2 = Cl, R3 = =NOCH2CN, R4 = Q, R5 = CO2H, R7 = CH2CH2OH, R8 = =NH, R9 = H, X = S) (II) is prepared by the condensation of (Z)-2-cyanomethoxyimino-2-(2- amino-5-chlorothiazol-4-yl)acetic acid with 7β-amino-3-[5-imino-1-(2- hydroxyethyl)-2-pyrazolyl]-methyl-3-cephem-4-carboxylic acid. II shows an MIC of 6.25 υg/mL against S. aureus 3004 when incubated at 37°C for 20 h.

IT **199002-63-6P 199002-68-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 3-pyrazoliomethylcephem compds. as antimicrobial agents)

RN 199002-63-6 CAPLUS

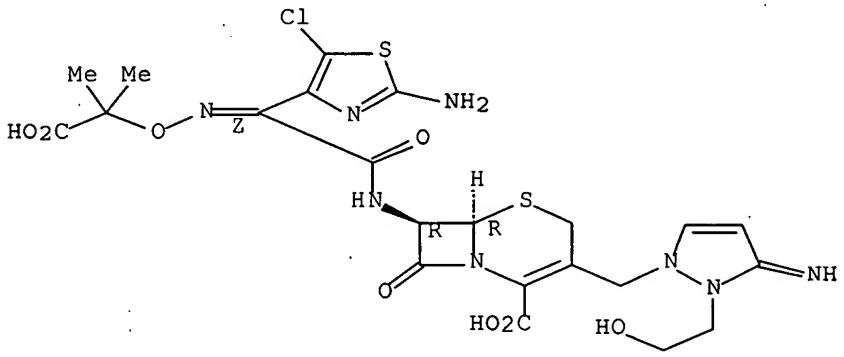
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-chloro-4-thiazolyl)[[(3-carboxy-2-propenyl)oxy]imino]acetyl]amino]-3-[[2,3-dihydro-2-(2-hydroxyethyl)-3-imino-1H-pyrazol-1-yl]methyl]-8-oxo-, [6R-[6α,7β[Z(E)]]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

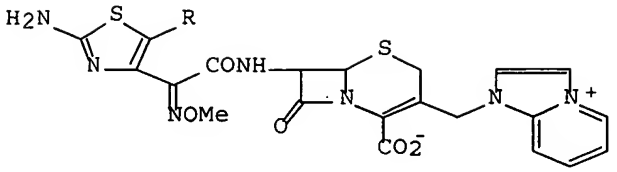


RN 199002-68-1 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-3-[[2,3-dihydro-2-(2-hydroxyethyl)-3-imino-1H-pyrazol-1-yl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

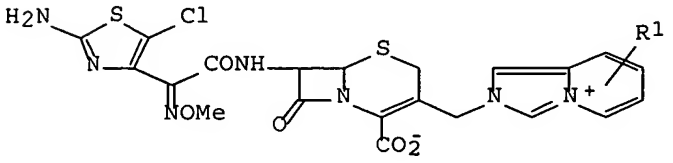
Absolute stereochemistry.
Double bond geometry as shown.



L17 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:469622 CAPLUS Full-text
DOCUMENT NUMBER: 117:69622
TITLE: Studies on condensed-heterocyclic azolium cephalosporins. III. Synthesis and antibacterial activity of 7β-[2-(2-amino-5-substituted-thiazol-4-yl)-2(Z)-alkoxyiminoacetamido]-3-(condensed-heterocyclic azolium)methyl-3-cephem-4-carboxylates
AUTHOR(S): Nishimura, Tatsuo; Yoshimura, Yoshinobu; Miyake, Akio
CORPORATE SOURCE: Chem. Res. Lab., Takeda Chem. Ind., Ltd., Osaka, 532, Japan
SOURCE: Journal of Antibiotics (1992), 45(4), 485-99
CODEN: JANTAJ; ISSN: 0021-8820
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 23 Aug 1992
GI



I



II

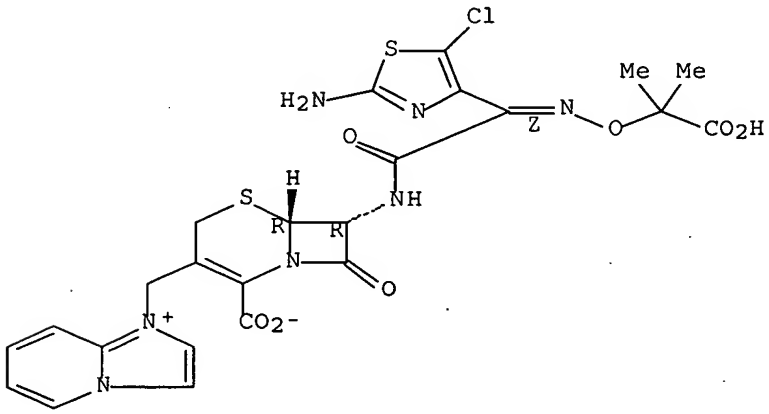
AB A series of azoliumylmethylcephemcarboxylates, e.g., I (R = Cl, Br, iodo, SMe, SOMe, SO2Me, SO3Na) and II (R1 = H, 1-, 3-, 5-, 7-Me, 7-Cl, 7-CO2Me, 7-cyano) were prepared and tested for antibacterial activity. II (R1 = H) showed good antibacterial activity against both Staphylococcus aureus including methicillin-resistant strains and Pseudomonas aeruginosa.

IT **106850-43-5P 106850-52-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and bactericidal activity of)

RN 106850-43-5 CAPLUS

CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



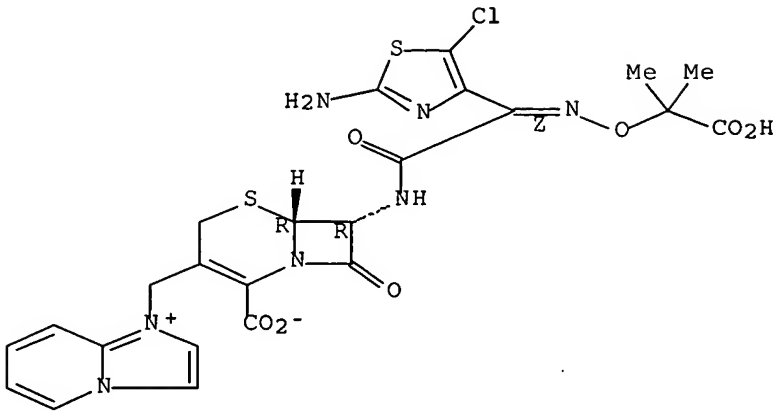
RN 106850-52-6 CAPLUS

CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt,

[6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A

● Na

L17 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:101958 CAPLUS Full-text
DOCUMENT NUMBER: 106:101958
TITLE: Antibacterial cephem analogs
INVENTOR(S): Miyake, Akio; Kondo, Masahiro; Fujino, Masahiko
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 195 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

1185

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8605184	A1	19860912	WO 1985-JP102	19850301
W: MC				
NO 8501538	A	19851024	NO 1985-1538	19850417
NO 165842	B	19910107		
NO 165842	C	19910417		
EP 160252	A2	19851106	EP 1985-104687	19850418
EP 160252	A3	19870114		
EP 160252	B1	19921223		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 79882	E	19920915	AT 1985-104687	19850418
DK 8501799	A	19851024	DK 1985-1799	19850422
FI 8501592	A	19851024	FI 1985-1592	19850422
JP 60231684	A2	19851118	JP 1985-86746	19850422

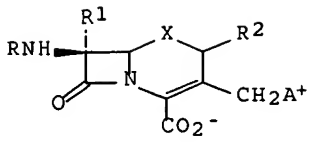
ES 542447	A1	19860401	ES 1985-542447	19850422
SU 1595341	A3	19900923	SU 1985-3896500	19850422
AU 8541700	A1	19851031	AU 1985-41700	19850423
AU 580995	B2	19890209		
US 4788185	A	19881129	US 1985-726438	19850423
CA 1283096	A1	19910416	CA 1985-479769	19850423
CN 85105797	A	19860827	CN 1985-105797	19850730
ES 549180	A1	19870716	ES 1985-549180	19851122
NO 8504730	A	19851024	NO 1985-4730	19851126
NO 167293	B	19910715		
NO 167293	C	19911023		
NO 8600725	A	19860902	NO 1986-725	19860227
NO 166283	B	19910318		
NO 166283	C	19910626		
EP 203271	A2	19861203	EP 1986-102584	19860227
EP 203271	A3	19880601		
EP 203271	B1	19930526		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 89826	E	19930615	AT 1986-102584	19860227
DK 8600935	A	19860902	DK 1986-935	19860228
FI 8600870	A	19860902	FI 1986-870	19860228
FI 85858	B	19920228		
FI 85858	C	19920610		
AU 8654168	A1	19860904	AU 1986-54168	19860228
AU 598728	B2	19900705		
WO 8605183	A1	19860912	WO 1986-JP99	19860228
W: SU				
CN 86102034	A	19870107	CN 1986-102034	19860228
CN 1030657	B	19960110		
ES 552525	A1	19870516	ES 1986-552525	19860228
JP 62149682	A2	19870703	JP 1986-44991	19860228
JP 02057074	B4	19901203		
CA 1295995	A1	19920218	CA 1986-502935	19860228
ZA 8601566	A	19871125	ZA 1986-1566	19860303
ES 553666	A1	19870616	ES 1986-553666	19860403
ES 557129	A1	19871201	ES 1986-557129	19861003
SU 1678211	A3	19910915	SU 1986-4028462	19861031
ES 557182	A1	19880101	ES 1986-557182	19861103
ES 557182	A5	19880128		
ES 557183	A1	19880101	ES 1986-557183	19861103
ES 557183	A5	19880128		
SU 1788955	A3	19930115	SU 1988-4355188	19880211
JP 03047189	A2	19910228	JP 1990-169780	19900629
JP 07030089	B4	19950405		
RU 2024529	C1	19941215	RU 1990-4831061	19900921
RU 2059641	C1	19960510	RU 1992-5052288	19920630

PRIORITY APPLN. INFO.:

WO 1984-JP212	A	19840423
WO 1984-JP270	A	19840525
WO 1985-JP102	A	19850301
NO 1985-1538	A	19850417
EP 1985-104687	A	19850418
JP 1985-209320	A	19850920
EP 1986-102584	A	19860227
WO 1986-JP99	W	19860228

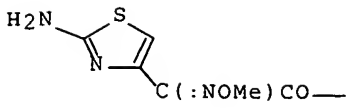
ED Entered STN: 05 Apr 1987

GI



I

Q=



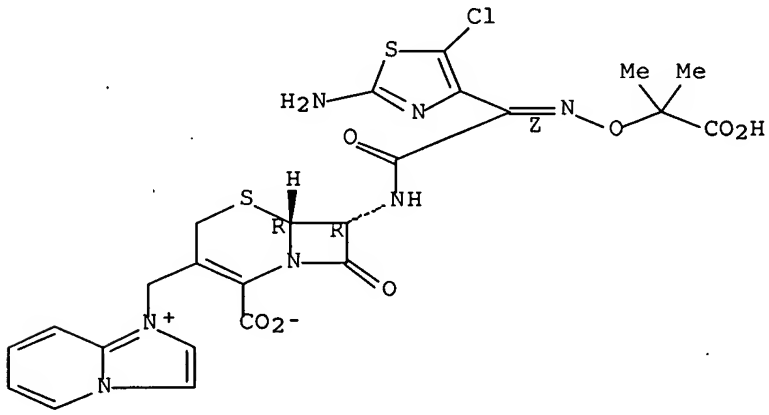
AB The title compds. [I; R = H, acyl, alkoxycarbonyl, N-containing heterocyclyl(substituted hydroxyimino)acetyl; R1 = H, OMe, HCONH; R2 = H, Me, OH, halo; A+ = (un)substituted fused imidazolium-1-yl; X = S, S(O), O, CH2], useful as antibacterials (no data), were prepared Thus, a solution of 7β-[2-(2-aminothiazol-4-yl)-2(Z)-(methoxyiminoacetamido)]-3-(3-oxobutyryloxymethyl)-3-cephem-4-carboxylic acid, 6-cyanoimidazo[1,2-a]pyridine, and KI in a 1:1 mixture of MeCN and H2O was allowed to react at 60-70° for 1.5 h to give 7β-(Z)-I [R = Q, R1 = R2 = H, A+ = 6-cyanoimidazo[1,2-a]pyridinium-1-yl, X = S].

IT **106850-43-5P 106850-52-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antibacterial)

RN 106850-43-5 CAPLUS

CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

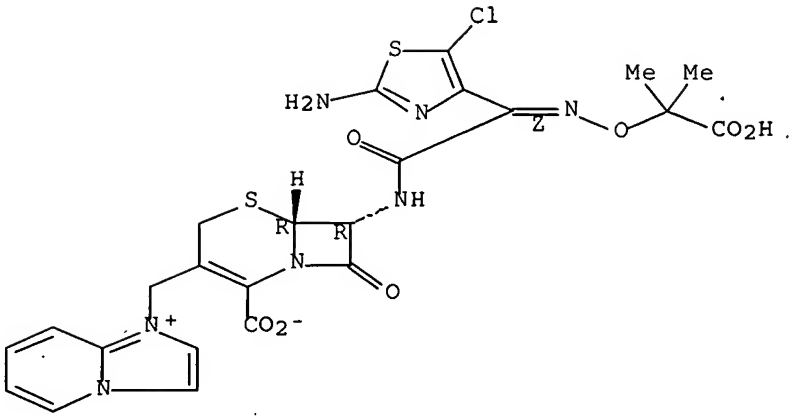


RN 106850-52-6 CAPLUS

CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A

● Na

=>
=> => fil reg; d stat que l21; d stat que l23; fil capl; d que nos l27
FILE 'REGISTRY' ENTERED AT 16:05:39 ON 19 OCT 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 OCT 2006 HIGHEST RN 910777-14-9
DICTIONARY FILE UPDATES: 18 OCT 2006 HIGHEST RN 910777-14-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

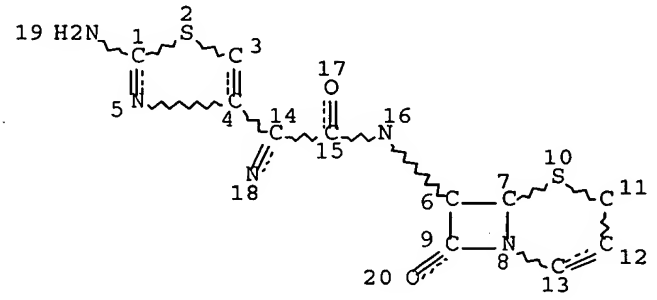
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

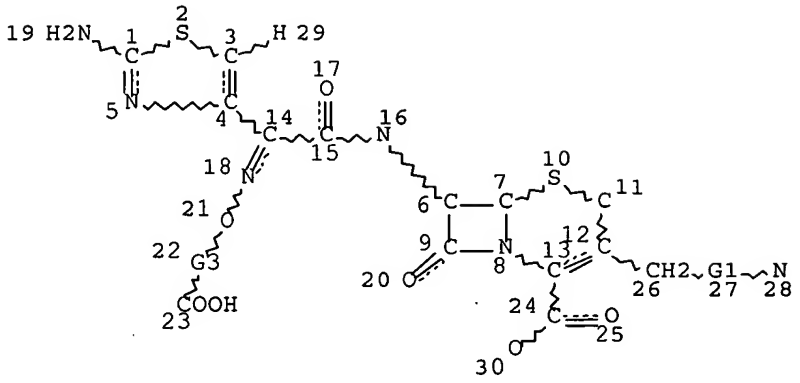
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L3 19554 SEA FILE=REGISTRY SSS FUL L1
L18 STR



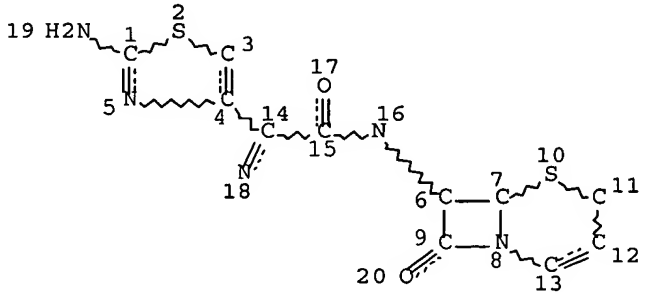
REP G1=(0-6) A
REP G3=(1-6) C
NODE ATTRIBUTES:
NSPEC IS R AT 28
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE
L21 784 SEA FILE=REGISTRY SUB=L3 SSS FUL L18

100.0% PROCESSED 5027 ITERATIONS 784 ANSWERS
SEARCH TIME: 00.00.01

L1 STR

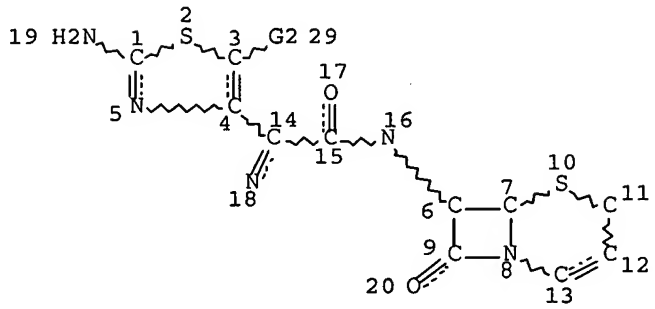


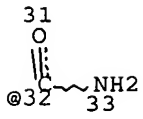
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

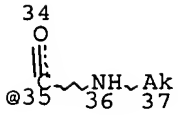
STEREO ATTRIBUTES: NONE

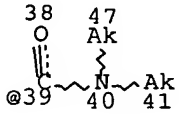
L3 19554 SEA FILE=REGISTRY SSS FUL L1
L19 STR

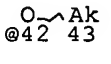


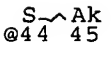


Ak @46









VAR G2=X/CN/32/35/39/42/44/46
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 37
CONNECT IS E1 RC AT 41
CONNECT IS E1 RC AT 43
CONNECT IS E1 RC AT 45
CONNECT IS E1 RC AT 46
CONNECT IS E1 RC AT 47
DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT 37 41 43 45 46 47
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 38

STEREO ATTRIBUTES: NONE
L23 956 SEA FILE=REGISTRY SUB=L3 SSS FUL L19

100.0% PROCESSED 19554 ITERATIONS 956 ANSWERS
SEARCH TIME: 00.00.01

FILE 'CAPLUS' ENTERED AT 16:05:39 ON 19 OCT 2006

databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 19 Oct 2006 VOL 145 ISS 17
FILE LAST UPDATED: 18 Oct 2006 (20061018/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

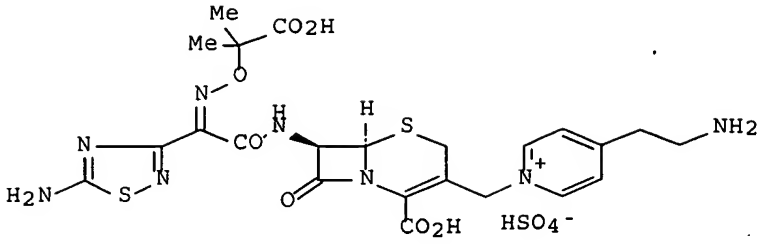
```
L1              STR
L3         19554 SEA FILE=REGISTRY SSS FUL L1
L18             STR
L19             STR
L21          784 SEA FILE=REGISTRY SUB=L3 SSS FUL L18
L23          956 SEA FILE=REGISTRY SUB=L3 SSS FUL L19
L24         4998 SEA FILE=CAPLUS ABB=ON  L21
L25          114 SEA FILE=CAPLUS ABB=ON  L23
L26           19 SEA FILE=CAPLUS ABB=ON  L24 AND L25
L27           16 SEA FILE=CAPLUS ABB=ON  L26 AND PATENT/DT
```

=> d ibib ed abs hitstr l27 1-16; fil hom

L27 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:348558 CAPLUS Full-text
DOCUMENT NUMBER: 145:7928
TITLE: Preparation of cephem compounds for use in antibacterial pharmaceutical compositions
INVENTOR(S): Okuda, Shinya; Murano, Kenji; Itoh, Kenji; Misumi, Keiji; Satoh, Kenji; Kawabata, Kohji; Toda, Ayako; Inoue, Satoshi; Ohki, Hidenori; Yamanaka, Toshio
PATENT ASSIGNEE(S): Wakunaga Pharmaceutical Co., Ltd., Japan; Astellas Pharma, Inc.
SOURCE: Aust. Pat. Appl., 96 pp.
CODEN: AUXXCM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
AU 2005202802	A1	20060112	AU 2005-202802		20050627
PRIORITY APPLN. INFO.:			AU 2004-903529	A	20040628
			AU 2004-903705	A	20040706

OTHER SOURCE(S): MARPAT 145:7928
ED Entered STN: 17 Apr 2006
GI



I

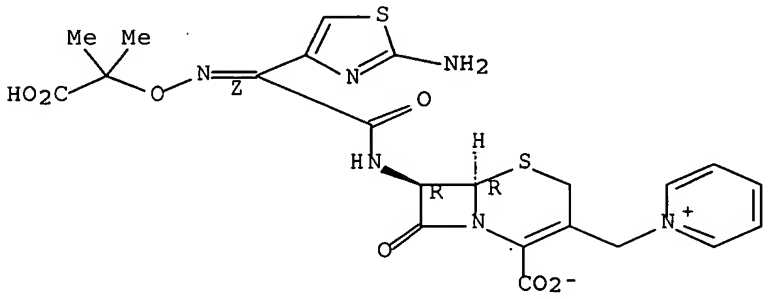
AB Cephem derivs., such as I, were prepared starting from 4-methoxybenzyl 7β-amino-3-(chloromethyl)-3-cephem-4-carboxylate hydrochloride for therapeutic use in the treatment of bacterial infections. The prepared cephems were assayed for antibacterial activity against Pseudomonas aeruginosa FP 1456.

IT **72558-82-8**, Ceftazidime
RL: PAC (Pharmacological activity); BIOL (Biological study)
(preparation of cephem compds. for use in antibacterial pharmaceutical compns.)

RN 72558-82-8 CAPLUS

CN Pyridinium, 1-[[(6R,7R)-7-[[(2Z)-(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **887775-65-7P 887775-67-9P 887775-74-8P**
887775-79-3P 887775-82-8P 887775-87-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cephem compds. for use in antibacterial pharmaceutical compns.)

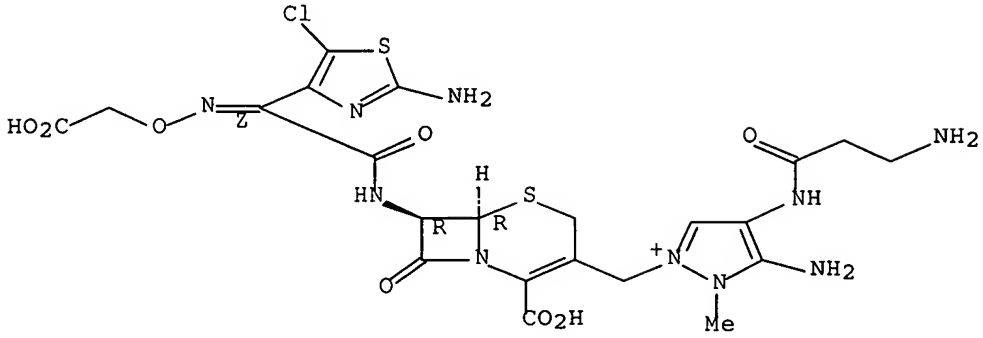
RN 887775-65-7 CAPLUS

CN 1H-Pyrazolium, 5-amino-2-[[(6R,7R)-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-[(3-amino-1-oxopropyl)amino]-1-methyl-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

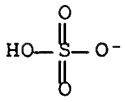
CRN 887775-64-6
CMF C22 H26 Cl N10 O8 S2

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 14996-02-2
CMF H O4 S

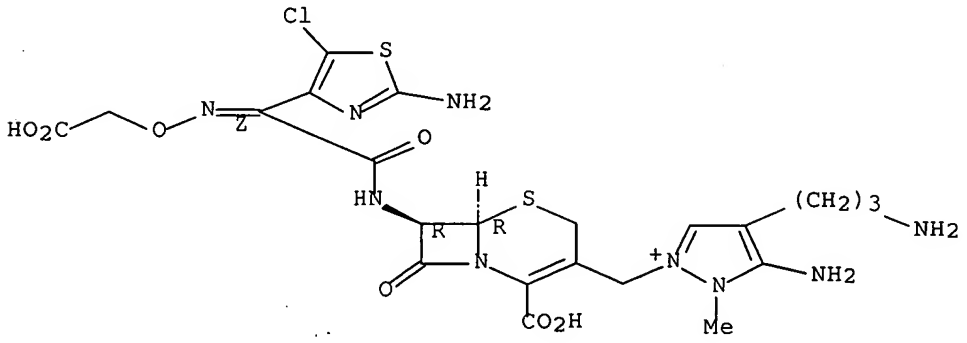


RN 887775-67-9 CAPLUS
CN 1H-Pyrazolium, 5-amino-2-[[(6R,7R)-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-(3-aminopropyl)-1-methyl-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

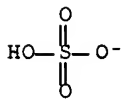
CRN 887775-66-8
CMF C22 H27 Cl N9 O7 S2

Absolute stereochemistry.
Double bond geometry as shown.



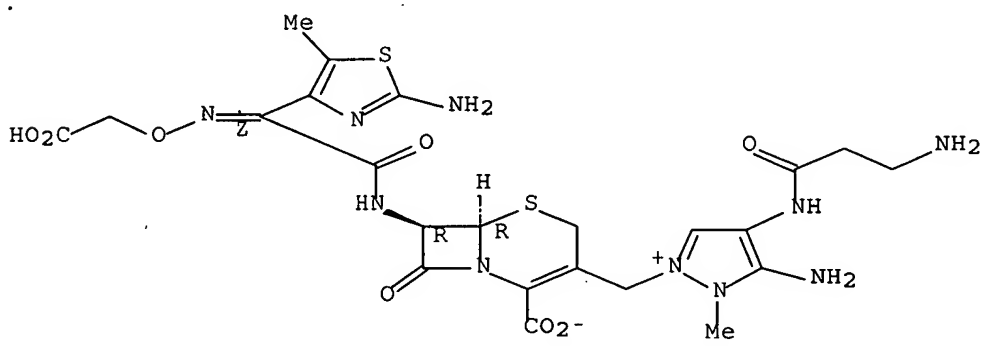
CM 2

CRN 14996-02-2
CMF H O4 S



RN 887775-74-8 CAPLUS
CN 1H-Pyrazolium, 5-amino-2-[[(6R,7R)-7-[[(2Z)-(2-amino-5-methyl-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-[(3-amino-1-oxopropyl)amino]-1-methyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

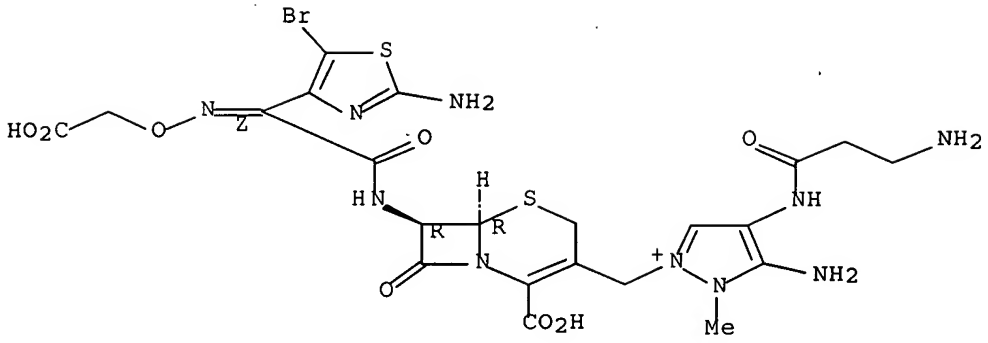


RN 887775-79-3 CAPLUS
CN 1H-Pyrazolium, 5-amino-2-[[(6R,7R)-7-[[(2Z)-(2-amino-5-bromo-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-[(3-amino-1-oxopropyl)amino]-1-methyl-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

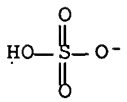
CRN 887775-78-2
CMF C22 H26 Br N10 O8 S2

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 14996-02-2
CMF H O4 S

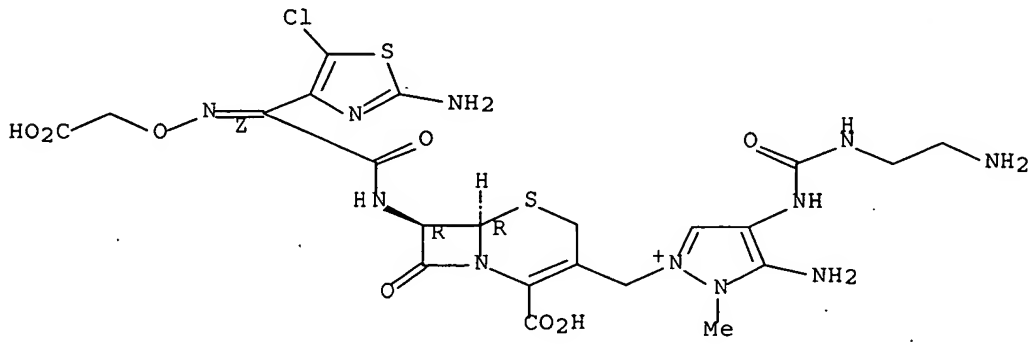


RN 887775-82-8 CAPLUS
CN 1H-Pyrazolium, 5-amino-2-[[(6R,7R)-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-[[[(2-aminoethyl)amino]carbonyl]amino]-1-methyl-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

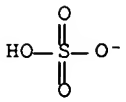
CRN 887775-81-7
CMF C22 H27 Cl N11 O8 S2

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 14996-02-2
CMF H O4 S

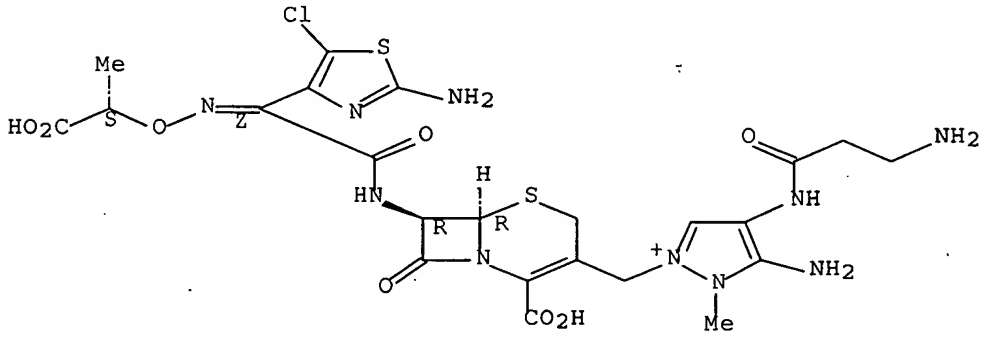


RN 887775-87-3 CAPLUS
CN 1H-Pyrazolium, 5-amino-2-[[(6R,7R)-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[[(1S)-1-carboxyethoxy]imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-[(3-amino-1-oxopropyl)amino]-1-methyl-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

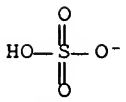
CRN 887775-86-2
CMF C23 H28 Cl N10 O8 S2

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

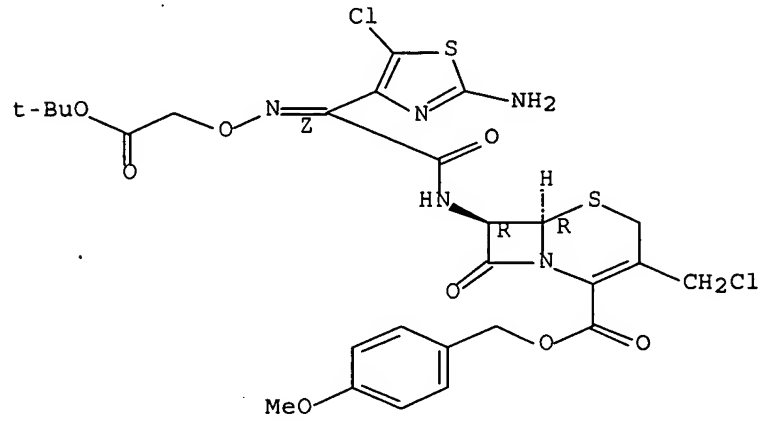
CRN 14996-02-2
CMF H O4 S



IT 887775-80-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of cephem compds. for use in antibacterial pharmaceutical

compns.)
RN 887775-80-6 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[[2-(1,1-dimethylethoxy)-2-oxoethoxy]imino]acetyl]amino]-3-(chloromethyl)-8-oxo-, (4-methoxyphenyl)methyl ester, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L27 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:533957 CAPLUS Full-text
DOCUMENT NUMBER: 141:82294
TITLE: Methods for treating and preventing gram-positive bacteremias by administering ramoplanin to decolonize the intestinal tract
INVENTOR(S): Parenti, Francesco; Fuchs, Henry; Leach, Timothy S.
PATENT ASSIGNEE(S): Italy
SOURCE: U.S. Pat. Appl. Publ., 16 pp.
CODEN: USXXCO
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004127403	A1	20040701	US 2003-655185		20030904
PRIORITY APPLN. INFO.:			US 2002-408596P	P	20020906
			US 2002-419117P	P	20021018

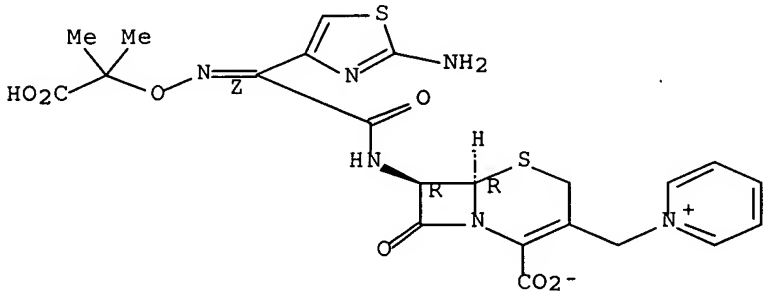
ED Entered STN: 02 Jul 2004
AB The present invention provides methods and compns. useful for preventing a bacteremia by administering ramoplanin to decolonize the intestinal tract of a patient. Also disclosed are methods for treating bacteremias using combination therapy directed both toward treating the infection as well as decolonizing the intestinal tract of the patient. The invention is particularly useful against antibiotic-resistant Gram-pos. bacteria, such as vancomycin-resistant Enterococcus (VRE), methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-resistant Staphylococcus aureus (VRSA), glycopeptide intermediary susceptible Staphylococcus aureus (GISA), and coagulase-neg. staphylococci.

IT 72558-82-8, Ceftazidime 189448-35-9, MC-02479
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(as bioavailable antibiotic for treating bacteremia in combination with oral ramoplanin; treating and preventing gram-pos. bacteremias with ramoplanin to decolonize the intestinal tract)

RN 72558-82-8 CAPLUS

CN Pyridinium, 1-[[(6R,7R)-7-[[(2Z)-(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt (9CI) (CA INDEX NAME)

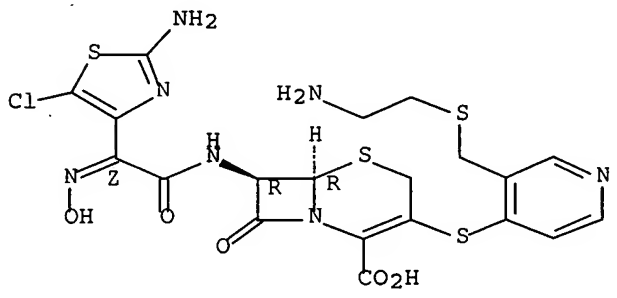
Absolute stereochemistry.
Double bond geometry as shown.



RN 189448-35-9 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)(hydroxyimino)acetyl]amino]-3-[[3-[[(2-aminoethyl)thio]methyl]-4-pyridinyl]thio]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L27 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:680468 CAPLUS Full-text

DOCUMENT NUMBER: 121:280468

TITLE: Preparation of cephalosporin derivatives

INVENTOR(S): Lee, Jong Wook; Chae, Jeong Seok; Choi, Young Ro; Lee, Yeong Nam; Rho, Eun Rae; Kang, Heui Il; Hyun, Jae Woo

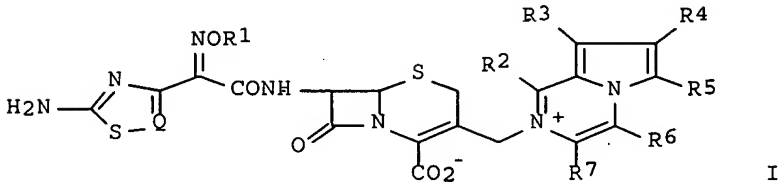
PATENT ASSIGNEE(S): Yuhan Corp., S. Korea

SOURCE: PCT Int. Appl., 103 pp.
CODEN: PIXXD2

DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9407898	A1	19940414	WO 1993-KR87	19930928
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
KR 157073	B1	19981116	KR 1993-17578	19930903
EP 662973	A1	19950719	EP 1993-922071	19930928
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08502734	T2	19960326	JP 1993-508913	19930928
CN 1169431	A	19980107	CN 1994-103365	19940331
US 5593984	A	19970114	US 1995-411767	19950331
PRIORITY APPLN. INFO.:			KR 1992-17969 A	19921001
			WO 1993-KR87 W	19930928

OTHER SOURCE(S): MARPAT 121:280468
ED Entered STN: 10 Dec 1994
GI



I

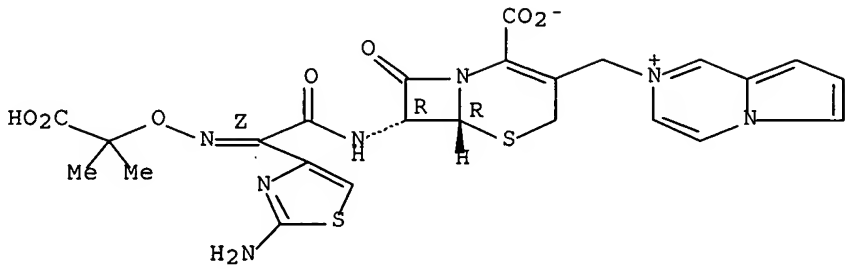
AB Title compds. I (R1 = H, (halo)C1-3 alkyl, propargyl, HO2CRbRaC wherein Ra, Rb = H, C1-3 alkyl; R2, R3, R4, R5, R6 and R7 = H, halo, C1-3 alkyl, H2N, HO-C1-3 alkythio, NC, H2NCO, HO2C, HO-C1-3 alkyl, O2N, Ac, HCO; Q = HC, N, ClC) or salt thereof, useful as antibiotics, are prepared 7-Amino-3-(pyrrolo[1,2-a]pyrazinium-2-yl)methyl-3-cephem-4-carboxylate (preparation given) and 2-(2-aminothiazol-4-yl)-2-(methoxyimino)acetic acid-N-hydroxybenzotriazol were added to H2O/MeCN to give 7-β-[(Z)-2-(2-aminothiazol-4-yl)methoxyiminoacetamido]-3-(pyrrolo[1,2- a]pyrazinium-2-yl)methyl-3-cephem-4-carboxylate. I possess potent and broad antibacterial activities, compared with the known ceftazidime and cefotaxime and they exhibit 2-10 and 2-4 times antibacterial activities against Gram-pos. and -neg bacteria, resp.

IT **158945-09-6P 158945-30-3P 158945-31-4P**
158945-54-1P 158945-56-3P 158945-59-6P
158945-61-0P 158945-63-2P 158945-65-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antibiotic)

RN 158945-09-6 CAPLUS

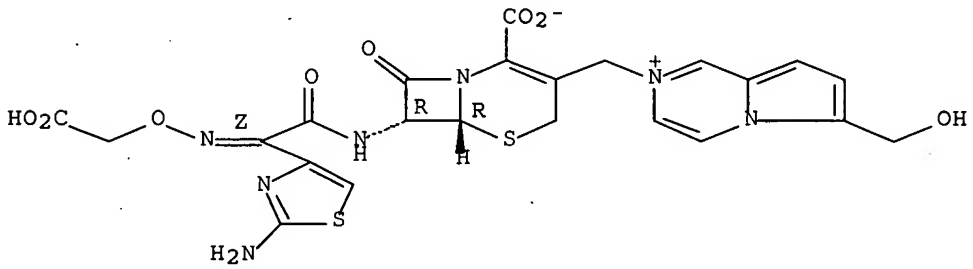
CN Pyrrolo[1,2-a]pyrazinium, 2-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



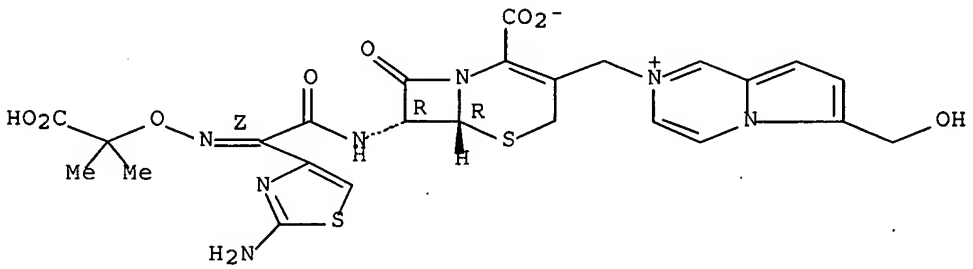
RN 158945-30-3 CAPLUS
CN Pyrrolo[1,2-a]pyrazinium, 2-[[7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6-(hydroxymethyl)-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 158945-31-4 CAPLUS
CN Pyrrolo[1,2-a]pyrazinium, 2-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6-(hydroxymethyl)-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

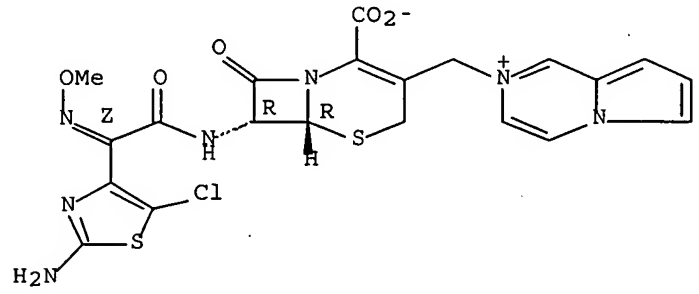
Absolute stereochemistry.
Double bond geometry as shown.



RN 158945-54-1 CAPLUS

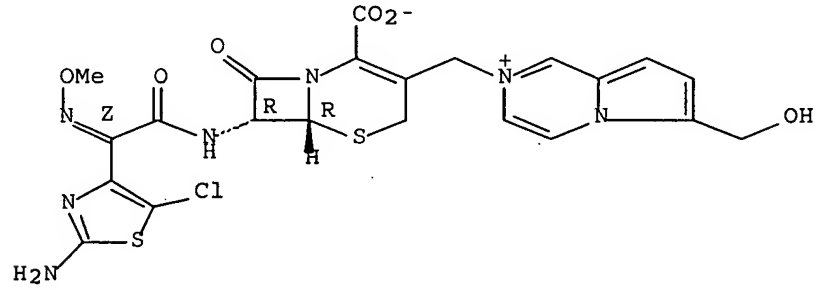
CN Pyrrolo[1,2-a]pyrazinium, 2-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



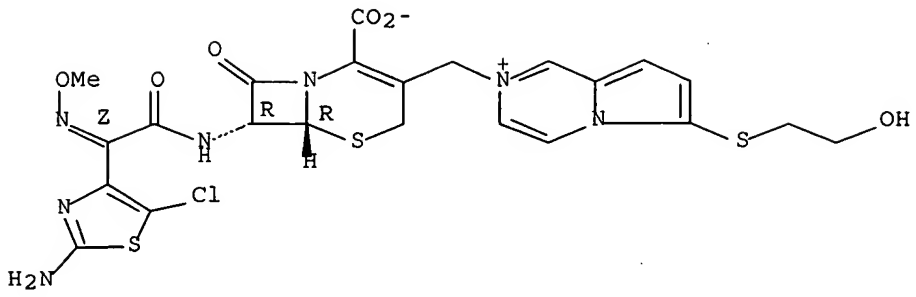
RN 158945-56-3 CAPLUS
CN Pyrrolo[1,2-a]pyrazinium, 2-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6-(hydroxymethyl)-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



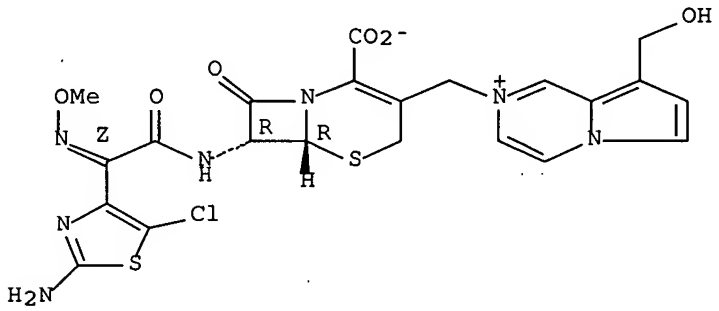
RN 158945-59-6 CAPLUS
CN Pyrrolo[1,2-a]pyrazinium, 2-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6-[(2-hydroxyethyl)thio]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



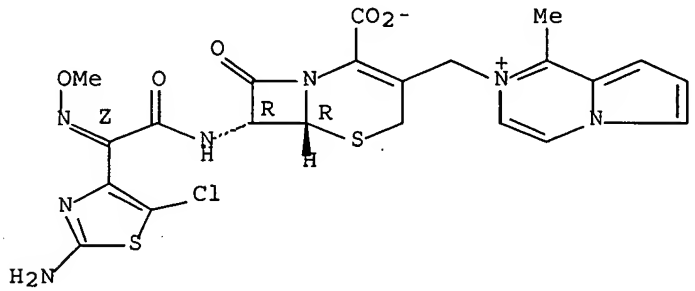
RN 158945-61-0 CAPLUS
CN Pyrrolo[1,2-a]pyrazinium, 2-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-8-(hydroxymethyl)-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 158945-63-2 CAPLUS
CN Pyrrolo[1,2-a]pyrazinium, 2-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-1-methyl-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

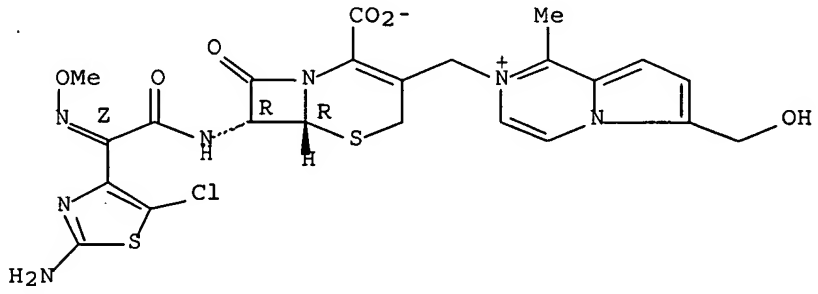
Absolute stereochemistry.
Double bond geometry as shown.



RN 158945-65-4 CAPLUS

CN Pyrrolo[1,2-a]pyrazinium, 2-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6-(hydroxymethyl)-1-methyl-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

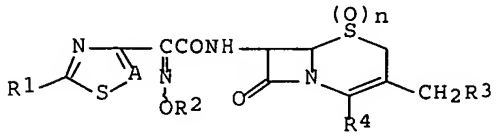
Absolute stereochemistry.
Double bond geometry as shown.



L27 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:603232 CAPLUS Full-text
DOCUMENT NUMBER: 119:203232
TITLE: Preparation of cephalosporin derivatives as antibacterial agents
INVENTOR(S): Tanaka, Kyoshi; Sutani, Mineichi; Komatsu, Miwako; Tsuchida, Keiichi; Saito, Akito; Hayashi, Kazuya; Kanna, Hiroshi; Yonezawa, Kenji; Minami, Shinzaburo; Watanabe, Yasuo
PATENT ASSIGNEE(S): Toyama Chemical Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05070469	A2	19930323	JP 1991-343925	19911202
JP 3141040	B2	20010305		

PRIORITY APPLN. INFO.: JP 1991-202416 A1 19910717
OTHER SOURCE(S): MARPAT 119:203232
ED Entered STN: 13 Nov 1993
GI



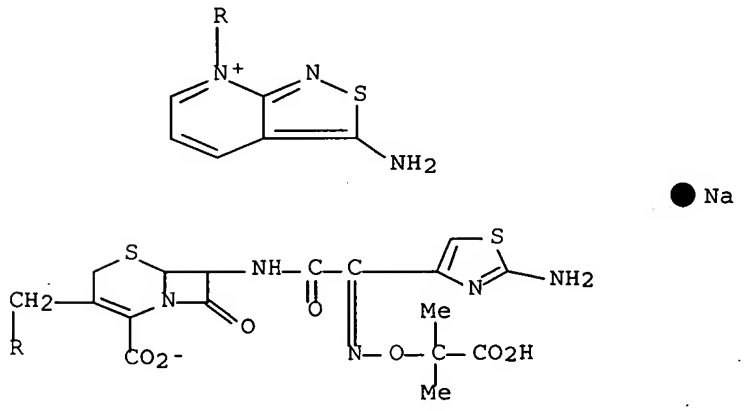
I

AB The title compds. [I; R1 = (un)protected NH2; R2 = H, (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, aralkyl, aryl, or heterocyclyl; R3 = (un)substituted isothiazolopyridinio; R4 = (un)protected CO2H, CO2-; A = CH, CX; X = halo; n = 0,1], having a broad spectrum of antibacterial activity, particularly against gram pos. bacteria including methicillin-resistant Staphylococcus, are prepared Thus, cyclocondensation of 4-cyano-3-mercaptopyridine Na salt with H2NOSO3H in the presence of KHCO3 in aqueous EtOH and quaternization of the resulting 3- aminoisothiazolo[5,4-b]pyridine by p-methoxybenzyl 3-iodomethyl-7-[2-(Z)- methoxyimino-2-(2-triphenylmethylaminothiazol-4-yl)acetamido]-3-cephem-4- carboxylate in DMF followed by deprotection with (a) CF3CO2H and anisole and then (b) 50% aqueous HCO2H gave 7-[2-(2-aminothiazol-4-yl)-2-(Z)- (methoxyimino)acetamido]-3-cephem-4-carboxylate (II). II in vitro showed min. inhibitory concentration of 0.39, 1.56, and 25 μg/mL against Staphylococcus aureus FDA209P, β-lactamase-producing S. aureus F-137, and methicillin-resistant S. aureus F-597, resp. A total of 25 I were prepared

IT **150364-37-7P 150364-44-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antibacterial agent)

RN 150364-37-7 CAPLUS

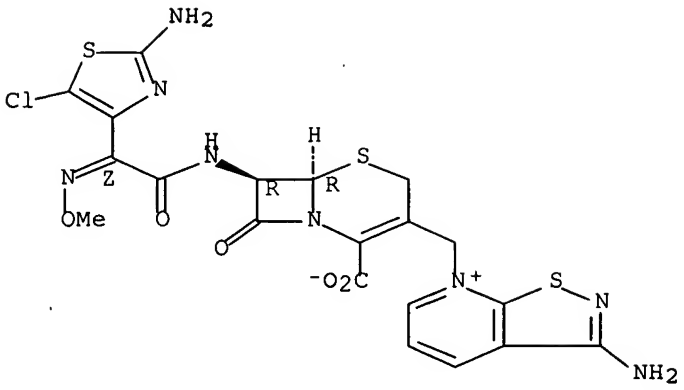
CN Isothiazolo[3,4-b]pyridinium, 3-amino-7-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)



RN 150364-44-6 CAPLUS

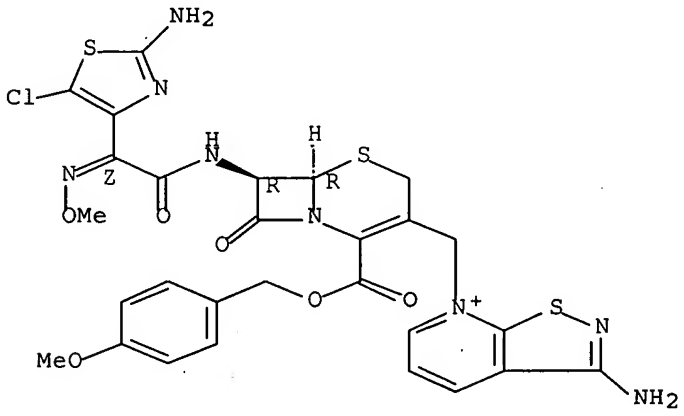
CN Isothiazolo[5,4-b]pyridinium, 3-amino-7-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **150364-17-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for antibacterial cephalosporin derivative)
RN 150364-17-3 CAPLUS
CN Isothiazolo[5,4-b]pyridinium, 3-amino-7-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-[[(4-methoxyphenyl)methoxy]carbonyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

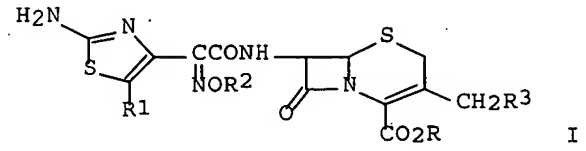


L27 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:94856 CAPLUS Full-text
DOCUMENT NUMBER: 110:94856
TITLE: Preparation of 3-(imidazopyridinomethyl)cephalosporins as antibiotics
INVENTOR(S): Lattrell, Rudolf; Duerckheimer, Walter; Kirrstetter, Reiner; Seibert, Gerhard
PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**

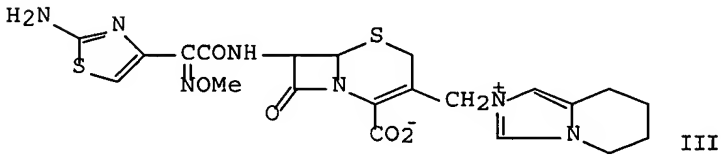
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3707019	A1	19880915	DE 1987-3707019	19870305
EP 281092	A2	19880907	EP 1988-103144	19880302
EP 281092	A3	19900509		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
DK 8801200	A	19880906	DK 1988-1200	19880304
AU 8812640	A1	19880908	AU 1988-12640	19880304
AU 609452	B2	19910502		
ZA 8801556	A	19881026	ZA 1988-1556	19880304
JP 01042491	A2	19890214	JP 1988-51402	19880304

PRIORITY APPLN. INFO.: DE 1987-3707019 A 19870305
OTHER SOURCE(S): MARPAT 110:94856
ED Entered STN: 17 Mar 1989
GI



I



III

AB The title compds. [I; R = neg. charge; R1 = H, halo; R2 = H, (un)substituted alkyl, alkenyl, (CH2)n(CR1R5)mR6, etc.; R3 = (un)substituted 5,6,7,8-tetrahydroimidazo[1,2-a]- or -[1,5-a]pyridino; R4, R5 = H, alkyl; CR4R5 = vinylidene, cycloalkylidene; R6 = CO2H, alkoxycarbonyl; m, n = 0, 1] were prepared as antibiotics (no data). Cephalosporanic acid I (R = R1 = H; R2 = Me, R3 = OAc) and CF3C(:NSiMe3)OSiMe3 (II) were refluxed 1 h in CH2Cl2 whereupon Me3SiI was added and the mixture stirred 20 min to give I (R-R2 as above, R3 = iodo) which was stirred 4 h with 5,6,7,8-tetrahydroimidazo[1,5-a]pyridine in MeCN containing II to give title compound III.HI.

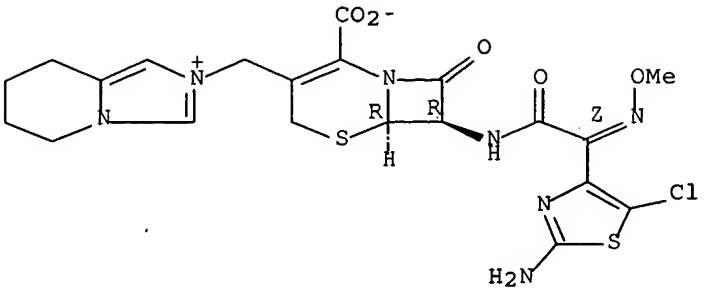
IT **118902-35-5P 118929-12-7P 118929-13-8P**
118929-14-9P 118929-16-1P 118929-19-4P
118929-20-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antibiotic)

RN 118902-35-5 CAPLUS

CN Imidazo[1,5-a]pyridinium, 2-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-5,6,7,8-tetrahydro-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

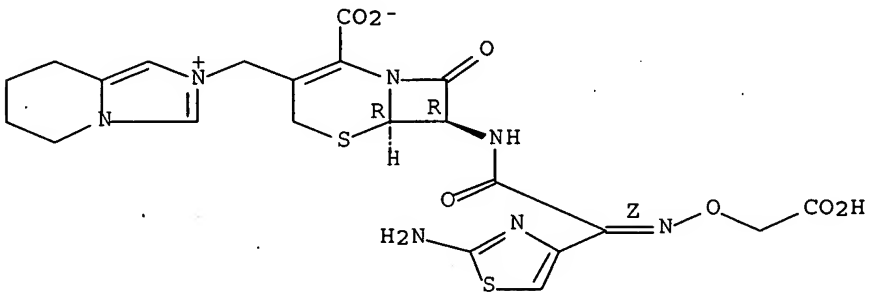
Absolute stereochemistry.

Double bond geometry as shown.



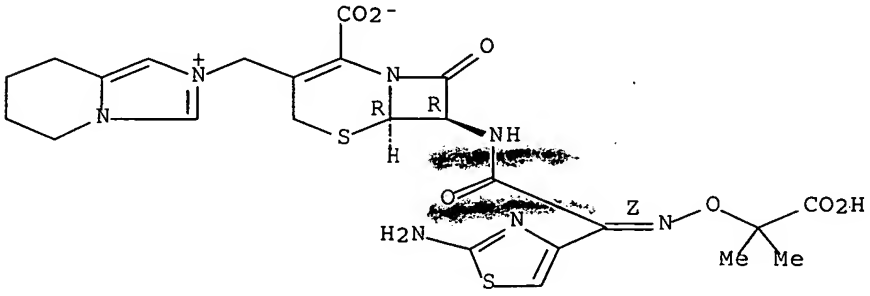
RN 118929-12-7 CAPLUS
CN Imidazo[1,5-a]pyridinium, 2-[[7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-5,6,7,8-tetrahydro-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



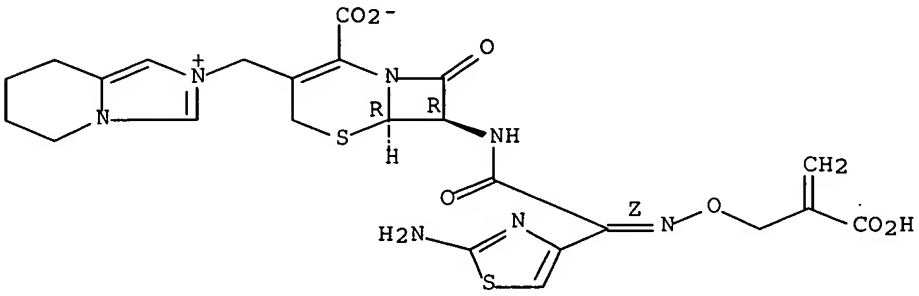
RN 118929-13-8 CAPLUS
CN Imidazo[1,5-a]pyridinium, 2-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-5,6,7,8-tetrahydro-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



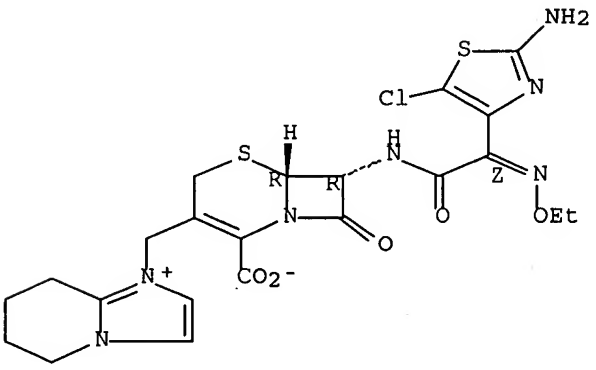
RN 118929-14-9 CAPLUS
CN Imidazo[1,5-a]pyridinium, 2-[[7-[[(2-amino-4-thiazolyl)[[(2-carboxy-2-propenyl)oxy]imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-5,6,7,8-tetrahydro-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



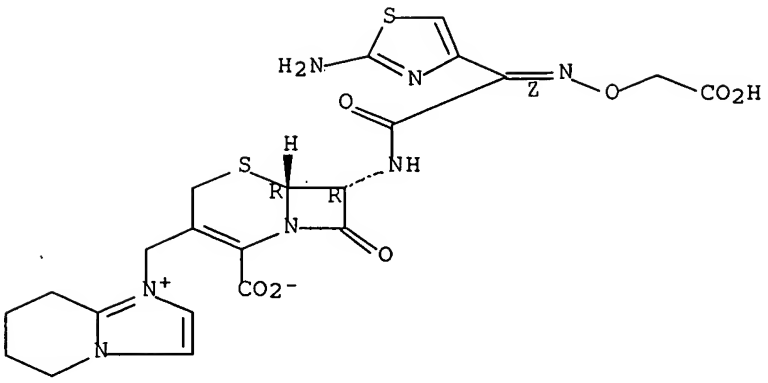
RN 118929-16-1 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)(ethoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-5,6,7,8-tetrahydro-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



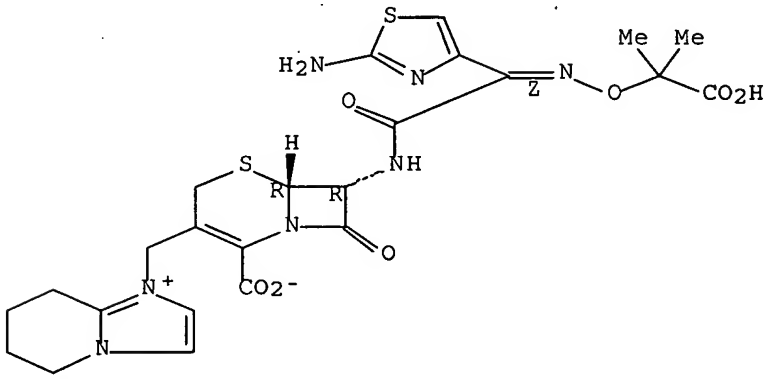
RN 118929-19-4 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-5,6,7,8-tetrahydro-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 118929-20-7 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-5,6,7,8-tetrahydro-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

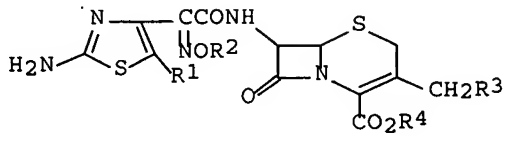


L27 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:458744 CAPLUS Full-text
DOCUMENT NUMBER: 107:58744
TITLE: Cephalosporin analogs, their preparation, and their use against bacterial infections
INVENTOR(S): Lattrell, Rudolf; Duerckheimer, Walter; Kirrstetter, Reiner; Seibert, Gerhard
PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 13 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

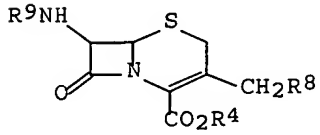
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3539901	A1	19870514	DE 1985-3539901	19851111

EP 222322	A2	19870520	EP 1986-115367			19861106
EP 222322	A3	19881005				
EP 222322	B1	19920506				
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE						
AT 75746	E	19920515	AT 1986-115367			19861106
FI 8604537	A	19870512	FI 1986-4537			19861107
DK 8605369	A	19870512	DK 1986-5369			19861110
NO 8604475	A	19870512	NO 1986-4475			19861110
AU 8664968	A1	19870514	AU 1986-64968			19861110
AU 602131	B2	19901004				
JP 62114990	A2	19870526	JP 1986-267423			19861110
HU 42492	A2	19870728	HU 1986-4639			19861110
HU 197018	B	19890228				
ZA 8608518	A	19870729	ZA 1986-8518			19861110
ES 2002903	A6	19881001	ES 1986-2966			19861110
PRIORITY APPLN. INFO.:			DE 1985-3539901	A		19851111
			EP 1986-115367	A		19861106

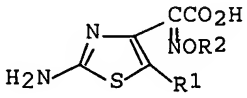
OTHER SOURCE(S): MARPAT 107:58744
ED Entered STN: 21 Aug 1987
GI



I



II



III

AB Cephalosporin analogs I [R1 = H, halo; R2 = H, (un)substituted C1-6 alkyl, halo (un)substituted C2-6 alkenyl or C3-7 cycloalkyl, C4-7 cycloalkenyl, C3-7 cycloalkylmethyl, (CH2)n(CR5R6)mR7; m, n = 0, 1; R5, R6 = H, aryl, C1-11 alkyl, CR5R6 = CH2, C3-7 cycloalkylidene; R7 = CO2H, C1-10 alkyl, cyano, CONH2, MeNHCO, Me2NCO; R3 = (un)substituted imidazol-1-yl; R4 = H, C1-6 alkanoyloxy-C1-6-alkyl, phthalidyl, C1-6 alkoxycarbonyloxy-C1-6- alkyl, 5-methyl-1,3-dioxolan-2-on-4-ylmethyl; OR2 = syn] and their salts, useful against bacterial infections (see data), were prepared by a) reaction of I (R3 = R8 = group exchangeable with imidazole or a derivative) with imidazole or a derivative, then cleavage of an optional protective group; b) reaction of cephem derivative II (R9 = H, amino protective group) with imidazole or derivative to give II (R8 = R3), cleavage of an optional amino protective group, and reaction of II (R8 = R3, R9 = H) as such or as a reactive derivative with oxime III (optional protected NH2) or with a CO2H activated derivative of III and cleavage of an optional protective group. I (R4 = H) may be converted into an ester. 7-[2-(2-Amino-4-thiazolyl)-2-syn-methoxyiminoacetamido]cephalosporanic acid in CHCl3 was treated with N-methyl-N-trimethylsilyltrifluoroacetamide (IV) at room temperature, then with Me3SiI at 18°, and the product in MeCN-THF was treated with 2-methylimidazole and IV to give 88% syn-I (R1 = R4 = H, R2 = Me, R3 = 2-methylimidazol-1-yl) (V)·HI, which was chromatographed to give 60% V and 9% Δ2 analog.

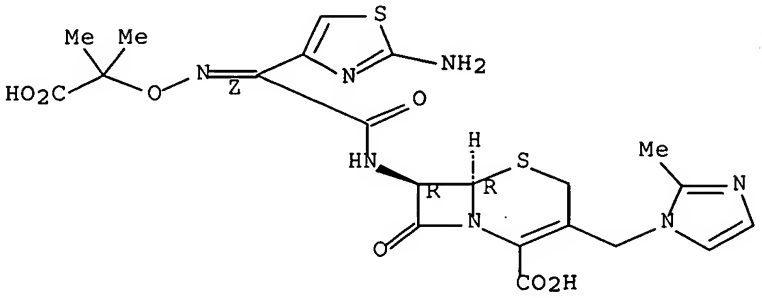
IT **109267-25-6P 109267-29-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antibacterial)

RN 109267-25-6 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-3-[(2-methyl-1H-imidazol-1-yl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

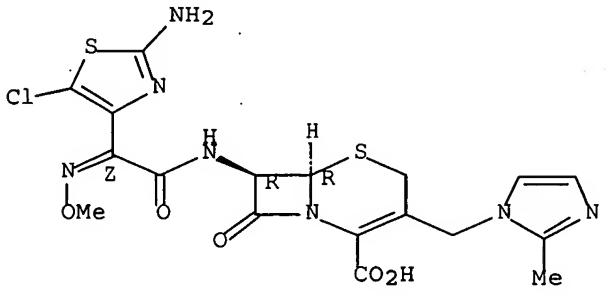
Absolute stereochemistry.
Double bond geometry as shown.



RN 109267-29-0 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[(2-methyl-1H-imidazol-1-yl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L27 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:101958 CAPLUS Full-text
DOCUMENT NUMBER: 106:101958
TITLE: Antibacterial cephem analogs
INVENTOR(S): Miyake, Akio; Kondo, Masahiro; Fujino, Masahiko
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 195 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

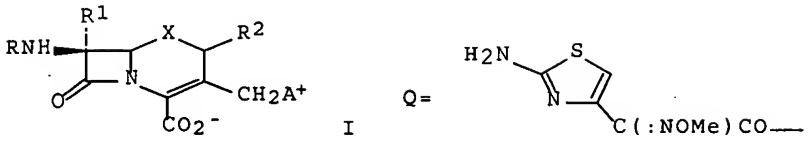
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8605184	A1	19860912	WO 1985-JP102	19850301
W: MC				
NO 8501538	A	19851024	NO 1985-1538	19850417
NO 165842	B	19910107		
NO 165842	C	19910417		
EP 160252	A2	19851106	EP 1985-104687	19850418
EP 160252	A3	19870114		
EP 160252	B1	19921223		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 79882	E	19920915	AT 1985-104687	19850418
DK 8501799	A	19851024	DK 1985-1799	19850422
FI 8501592	A	19851024	FI 1985-1592	19850422
JP 60231684	A2	19851118	JP 1985-86746	19850422
ES 542447	A1	19860401	ES 1985-542447	19850422
SU 1595341	A3	19900923	SU 1985-3896500	19850422
AU 8541700	A1	19851031	AU 1985-41700	19850423
AU 580995	B2	19890209		
US 4788185	A	19881129	US 1985-726438	19850423
CA 1283096	A1	19910416	CA 1985-479769	19850423
CN 85105797	A	19860827	CN 1985-105797	19850730
ES 549180	A1	19870716	ES 1985-549180	19851122
NO 8504730	A	19851024	NO 1985-4730	19851126
NO 167293	B	19910715		
NO 167293	C	19911023		
NO 8600725	A	19860902	NO 1986-725	19860227
NO 166283	B	19910318		
NO 166283	C	19910626		
EP 203271	A2	19861203	EP 1986-102584	19860227
EP 203271	A3	19880601		
EP 203271	B1	19930526		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 89826	E	19930615	AT 1986-102584	19860227
DK 8600935	A	19860902	DK 1986-935	19860228
FI 8600870	A	19860902	FI 1986-870	19860228
FI 85858	B	19920228		
FI 85858	C	19920610		
AU 8654168	A1	19860904	AU 1986-54168	19860228
AU 598728	B2	19900705		
WO 8605183	A1	19860912	WO 1986-JP99	19860228
W: SU				
CN 86102034	A	19870107	CN 1986-102034	19860228
CN 1030657	B	19960110		
ES 552525	A1	19870516	ES 1986-552525	19860228
JP 62149682	A2	19870703	JP 1986-44991	19860228
JP 02057074	B4	19901203		
CA 1295995	A1	19920218	CA 1986-502935	19860228
ZA 8601566	A	19871125	ZA 1986-1566	19860303
ES 553666	A1	19870616	ES 1986-553666	19860403
ES 557129	A1	19871201	ES 1986-557129	19861003
SU 1678211	A3	19910915	SU 1986-4028462	19861031
ES 557182	A1	19880101	ES 1986-557182	19861103
ES 557182	A5	19880128		
ES 557183	A1	19880101	ES 1986-557183	19861103
ES 557183	A5	19880128		
SU 1788955	A3	19930115	SU 1988-4355188	19880211

JP 03047189	A2	19910228	JP 1990-169780		19900629
JP 07030089	B4	19950405			
RU 2024529	C1	19941215	RU 1990-4831061		19900921
RU 2059641	C1	19960510	RU 1992-5052288		19920630
PRIORITY APPLN. INFO.:			WO 1984-JP212	A	19840423
			WO 1984-JP270	A	19840525
			WO 1985-JP102	A	19850301
			NO 1985-1538	A	19850417
			EP 1985-104687	A	19850418
			JP 1985-209320	A	19850920
			EP 1986-102584	A	19860227
			WO 1986-JP99	W	19860228

ED Entered STN: 05 Apr 1987

GI



AB The title compds. [I; R = H, acyl, alkoxycarbonyl, N-containing heterocyclyl(substituted hydroxyimino)acetyl; R1 = H, OMe, HCONH; R2 = H, Me, OH, halo; A+ = (un)substituted fused imidazolium-1-yl; X = S, S(O), O, CH2], useful as antibacterials (no data), were prepared Thus, a solution of 7β-[2-(2-aminothiazol-4-yl)-2(Z)-(methoxyiminoacetamido)]-3-(3-oxobutyryloxymethyl)-3-cephem-4-carboxylic acid, 6-cyanoimidazo[1,2-a]pyridine, and KI in a 1:1 mixture of MeCN and H2O was allowed to react at 60-70° for 1.5 h to give 7β-(Z)-I [R = Q, R1 = R2 = H, A+ = 6-cyanoimidazo[1,2-a]pyridinium-1-yl, X = S].

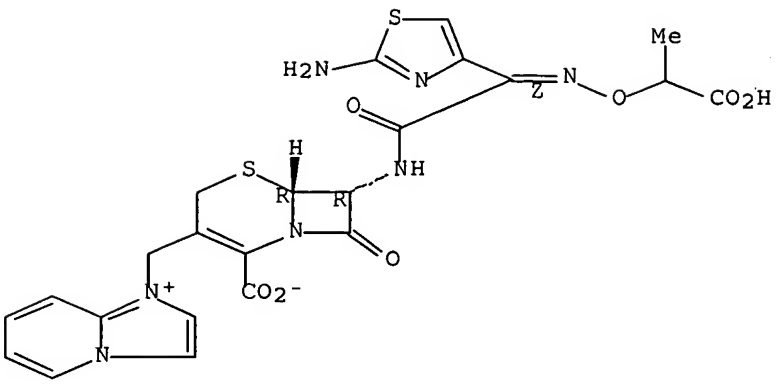
IT **103313-15-1P 106850-37-7P 106850-38-8P**
106850-39-9P 106850-40-2P 106850-41-3P
106850-42-4P 106850-43-5P 106850-45-7P
106850-46-8P 106850-47-9P 106850-48-0P
106850-49-1P 106850-50-4P 106850-51-5P
106850-52-6P 106867-40-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antibacterial)

RN 103313-15-1 CAPLUS

CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxyethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

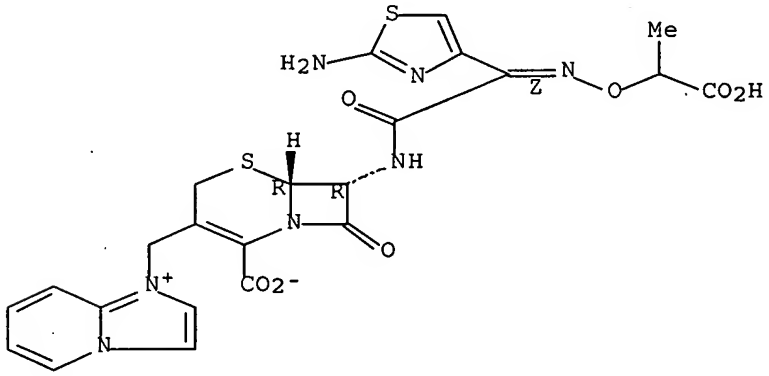


PAGE 2-A

● Na

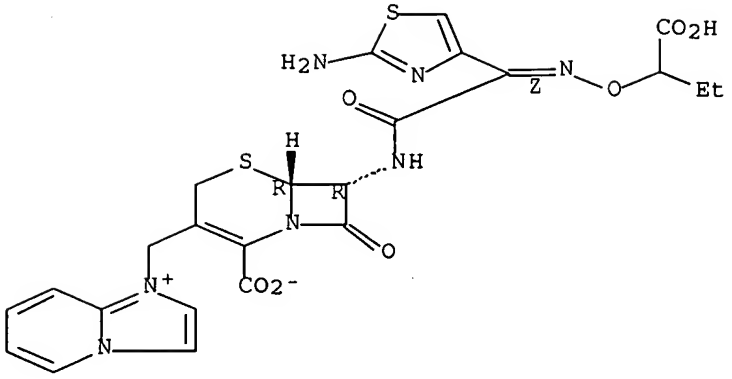
RN 106850-37-7 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxyethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



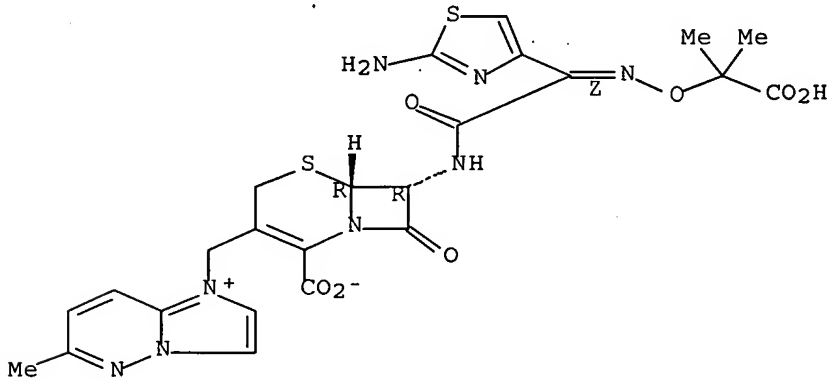
RN 106850-38-8 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxypropoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



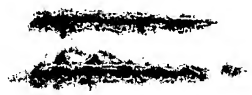
RN 106850-39-9 CAPLUS
CN Imidazo[1,2-b]pyridazinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6-methyl-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

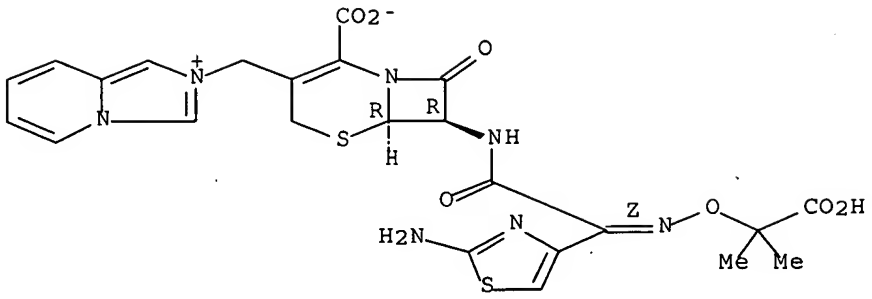
Absolute stereochemistry.
Double bond geometry as shown.



RN 106850-40-2 CAPLUS
CN Imidazo[1,5-a]pyridinium, 2-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

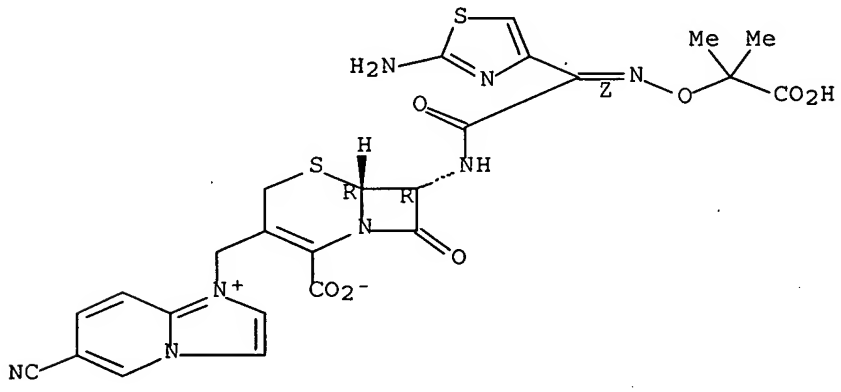
Absolute stereochemistry.
Double bond geometry as shown.





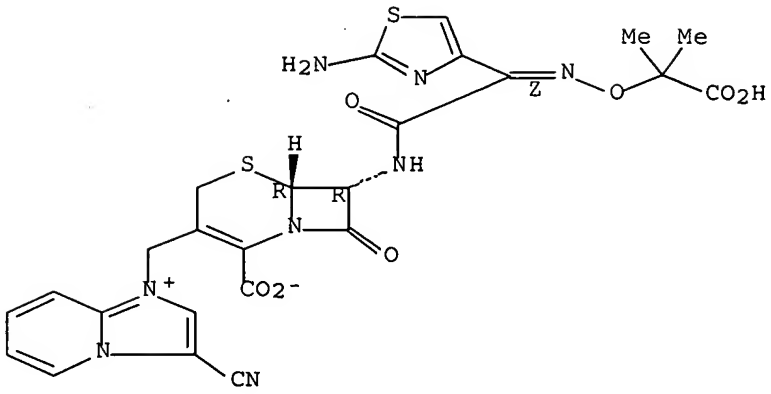
RN 106850-41-3 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6-cyano-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



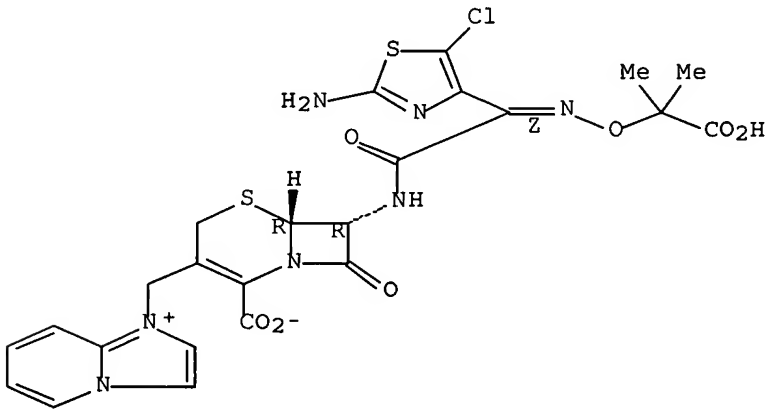
RN 106850-42-4 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-3-cyano-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 106850-43-5 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

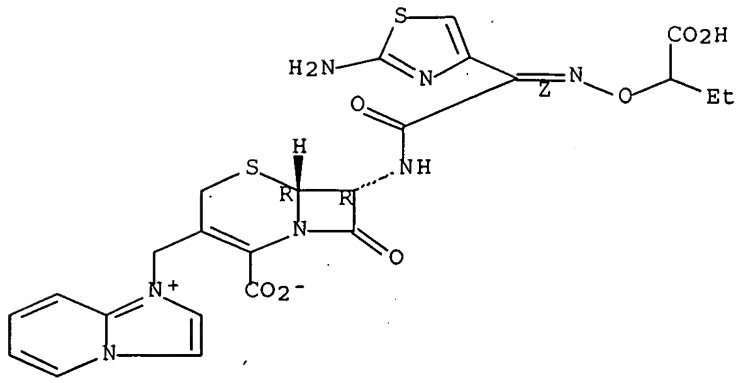
Absolute stereochemistry.
Double bond geometry as shown.



RN 106850-45-7 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxypropoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



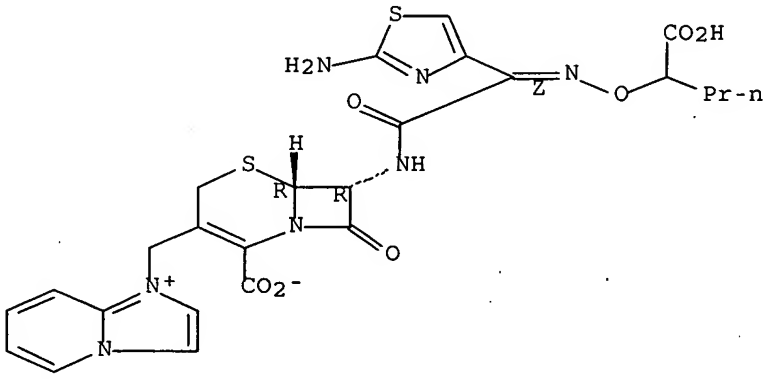
PAGE 2-A

● Na

RN 106850-46-8 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxybutoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A

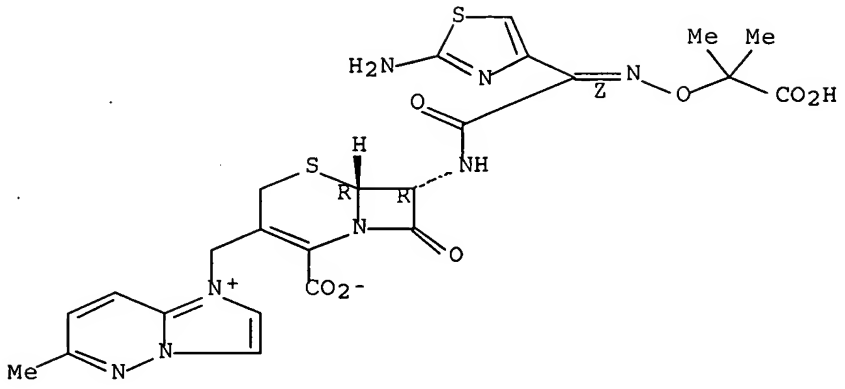
● Na

[redacted]

RN 106850-47-9 CAPLUS
CN Imidazo[1,2-b]pyridazinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6-methyl-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

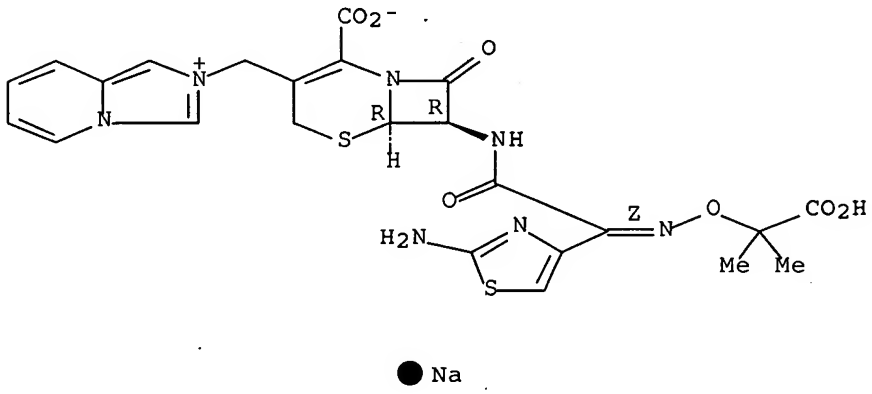
PAGE 1-A



PAGE 2-A

RN 106850-48-0 CAPLUS
CN Imidazo[1,5-a]pyridinium, 2-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



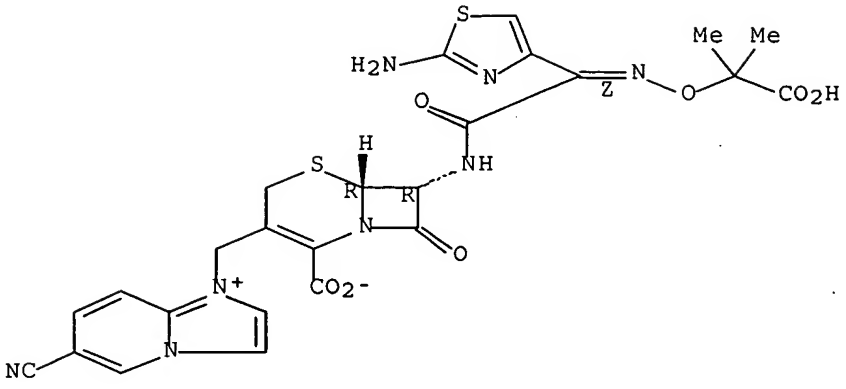
Na

RN 106850-49-1 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6-cyano-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



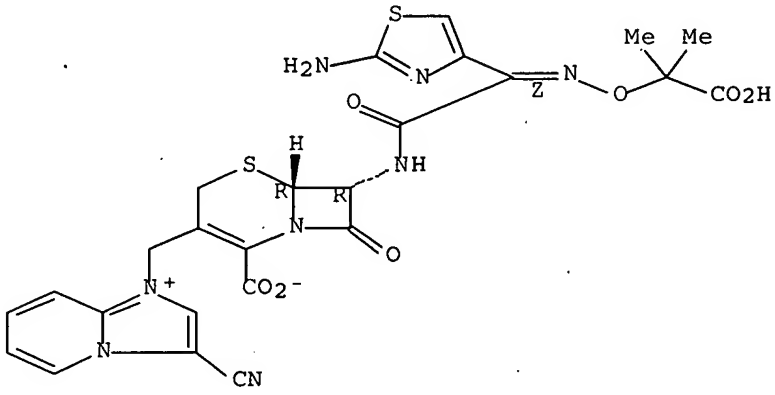
PAGE 2-A

● Na

RN 106850-50-4 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-3-cyano-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



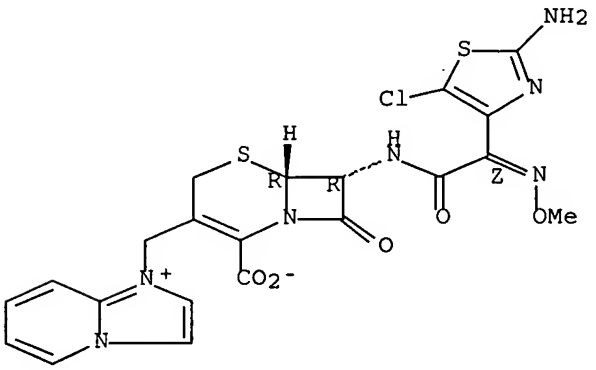
PAGE 2-A

● Na

RN 106850-51-5 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-

thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

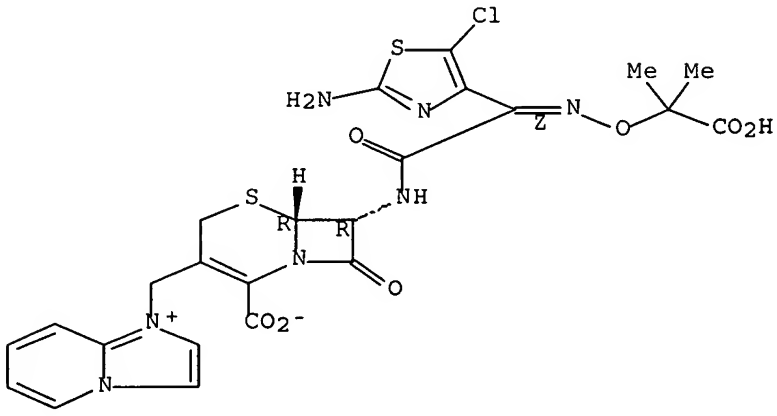
Absolute stereochemistry.
Double bond geometry as shown.



RN 106850-52-6 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



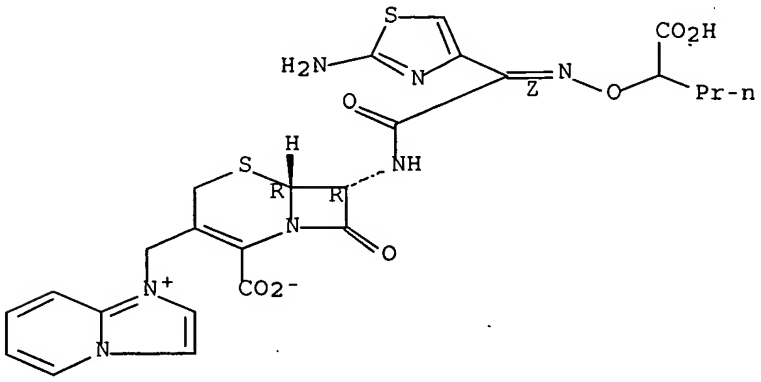
PAGE 2-A

● Na

RN 106867-40-7 CAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-

carboxybutoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

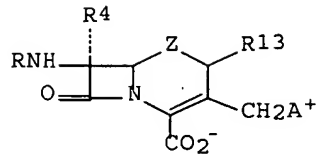


L27 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:49864 CAPLUS Full-text
DOCUMENT NUMBER: 106:49864
TITLE: Antibacterial compounds
INVENTOR(S): Miyake, Akio; Kondo, Masahiro; Fujino, Masahiko
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 169 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

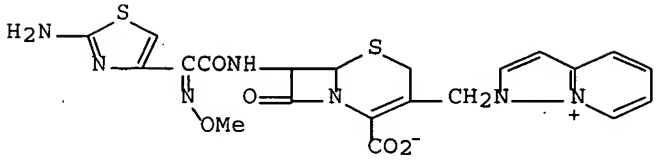
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 164113	A2	19851211	EP 1985-106979	19850605
EP 164113	A3	19870128		
EP 164113	B1	19900516		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
WO 8600070	A1	19860103	WO 1984-JP295	19840607
W: MC				
WO 8605787	A1	19861009	WO 1985-JP155	19850401
W: MC				
AT 52783	E	19900615	AT 1985-106979	19850605
CN 85105977	A	19870225	CN 1985-105977	19850807

PRIORITY APPLN. INFO.:
WO 1984-JP295 A 19840607
WO 1985-JP155 A 19850401
EP 1985-106979 A 19850605

OTHER SOURCE(S): MARPAT 106:49864
ED Entered STN: 21 Feb 1987
GI



I



II

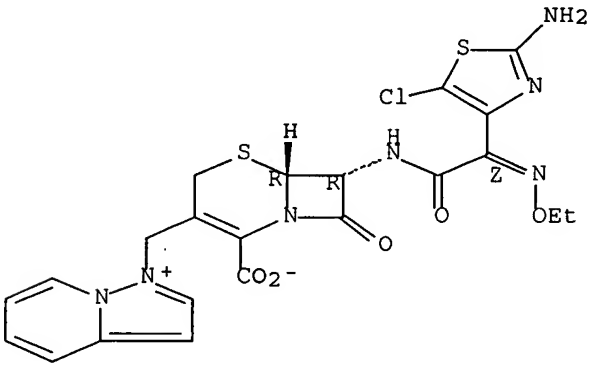
AB Cephems I [R = H, N-containing heterocyclyl, acyl, amino-protecting group; Z = S, S(O), O, CH2; R4 = H, MeO, HCONH; R13 = H, Me, OH, halo; A = (un)substituted pyrazol-2-yl forming a fused ring at the 1,5 position] or a physiol. or pharmaceutically acceptable salt or ester thereof, useful as antibacterials (no data), were prepared by 2 methods. Successive treatment of 7β-amino-3-(3-oxobutyryloxymethyl)-3-cephem-4-carboxylic acid in THF-H2O with NaHCO3 and 2-(2-chloroacetamidothiazol-4-yl)-2(Z)- methoxyiminoacetyl chloride-HCl at 5° give 7β-[2-(2- chloroacetamidothiazol-4-yl)-2(Z)-methoxyiminoacetamido]-3-(3- oxobutyryloxymethyl)-3-cephem-4-carboxylic acid, treatment of which with MeNHCS2Na gave the 2-(2-aminothiazol-4-yl) analog. This was treated with pyrazolo[1,5-a] pyridine and KI in MeCN-H2O to give the inner salt 2(Z)-II.

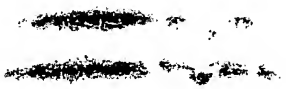
IT **104468-82-8P 104468-84-0P 104468-85-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antibacterial)

RN 104468-82-8 CAPLUS

CN Pyrazolo[1,5-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)(ethoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



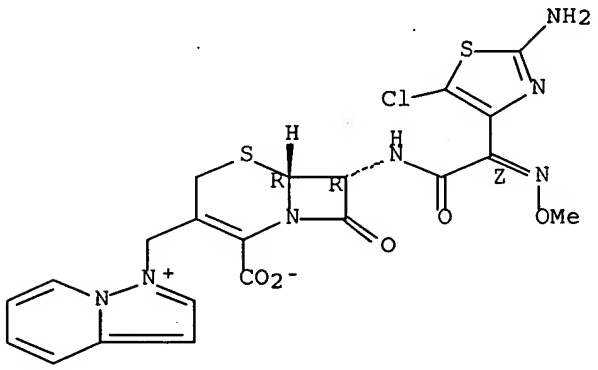


RN 104468-84-0 CAPLUS

CN Pyrazolo[1,5-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-

thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

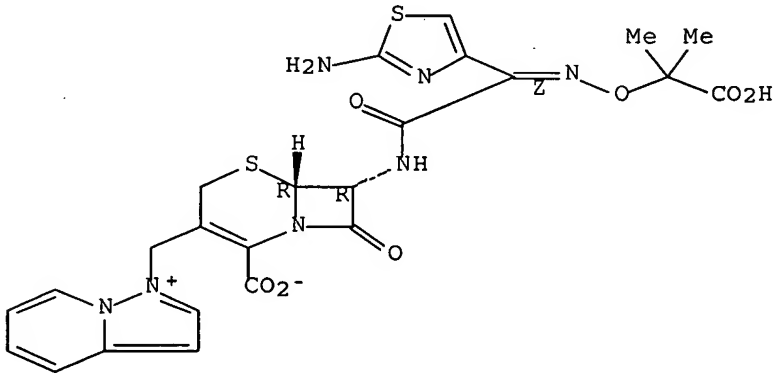
Absolute stereochemistry.
Double bond geometry as shown.



RN 104468-85-1 CAPLUS
CN Pyrazolo[1,5-a]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



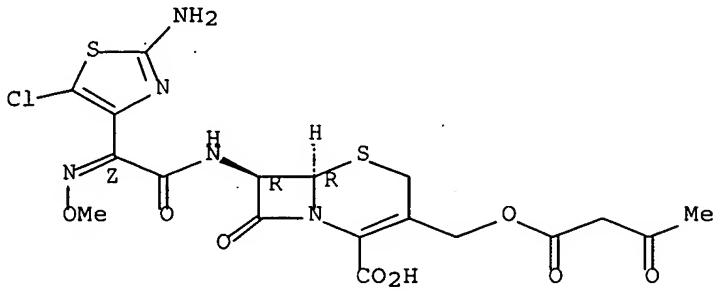
PAGE 2-A

● Na

IT **104468-49-7P 104492-92-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for cephalosporin antibiotic)
RN 104468-49-7 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,

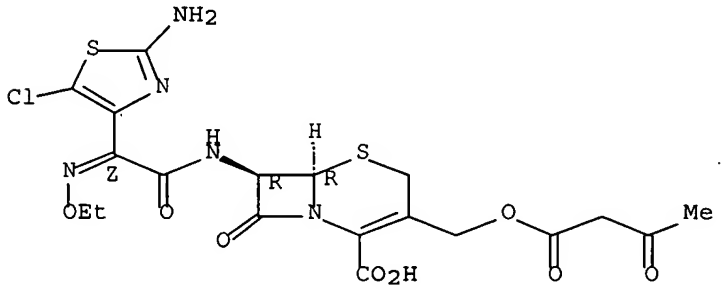
7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[(1,3-dioxobutoxy)methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 104492-92-4 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-chloro-4-thiazolyl)(ethoxyimino)acetyl]amino]-3-[(1,3-dioxobutoxy)methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



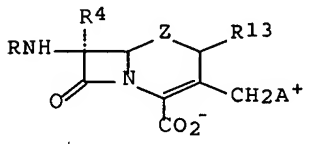
L27 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:552815 CAPLUS Full-text
DOCUMENT NUMBER: 105:152815
TITLE: Cephem compounds
INVENTOR(S): Miyake, Akio; Kondo, Masahiro; Fujino, Masahiko
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd. , Japan
SOURCE: Eur. Pat. Appl., 178 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

EP 164122	A2	19851211	EP 1985-107013		19850606
EP 164122	A3	19870128			
EP 164122	B1	19900919			
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE					
WO 8600071	A1	19860103	WO 1984-JP296		19840608
W: MC					
WO 8606376	A1	19861106	WO 1985-JP245		19850430
W: MC					
AT 56719	E	19901015	AT 1985-107013		19850606
CN 85105988	A	19861029	CN 1985-105988		19850808
PRIORITY APPLN. INFO.:			WO 1984-JP296	A	19840608
			WO 1985-JP245	A	19850430
			EP 1985-107013	A	19850606

ED Entered STN: 01 Nov 1986

GI



I

AB Cephems I [R = N-containing heterocyclyl, acyl, NH2 protecting group; Z = S, S(O), O, CH2; R4 = H, MeO, HCONH; R13 = H, Me, OH, halo; A = (un)substituted 3-thiazolyl forming a fused ring at 4,5] or their physiol. or pharmaceutically acceptable salts or esters, useful as antibacterials (no data), were prepared 7β-[2-[2-(2-Chloroacetamido)-4-thiazolyl-2(Z)- methoxyiminoacetamido]-3-(3-oxobutyryloxymethyl)-3-cephem-4-carboxylic acid in THF-H2O was treated with MeNHCS2Na to give 7β-[2-(2-amino-4- thiazolyl-2(Z)-methoxyiminoacetamido]-3-(3-oxobutyryloxymethyl)-3-cephem-4- carboxylic acid which reacted with 4,5,6,7-tetrahydrobenzothiazole and KI in MeCN-H2O to give 7β-[2-(2-amino-4-thiazolyl-2(Z)- methoxyiminoacetamido]-3-[(4,5,6,7-tetrahydrobenzothiazolio)methyl]-3- cephem-4-carboxylate.

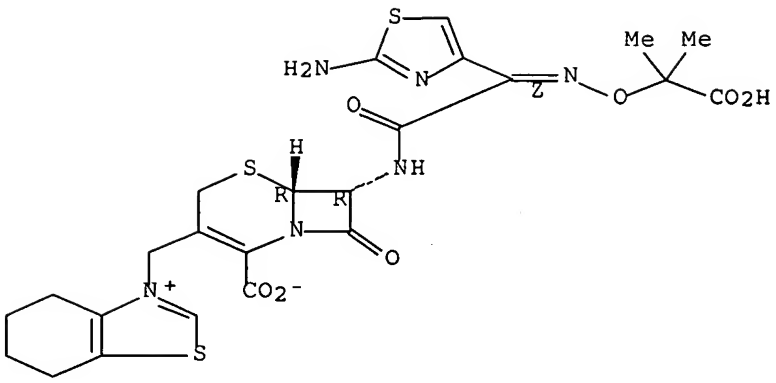
IT **104082-44-2P 104468-64-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antibacterial)

RN 104082-44-2 CAPLUS

CN Benzothiazolium, 3-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4,5,6,7-tetrahydro-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

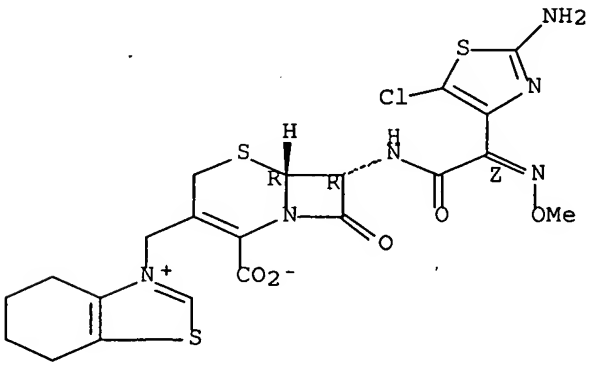
PAGE 1-A



PAGE 2-A

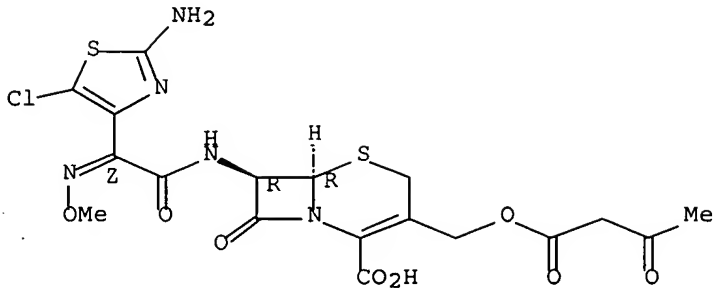
RN 104468-64-6 CAPLUS
CN Benzothiazolium, 3-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4,5,6,7-tetrahydro-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **104468-49-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as cephalosporin intermediate)
RN 104468-49-7 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[(1,3-dioxobutoxy)methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

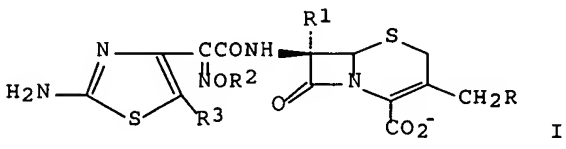
Absolute stereochemistry.
Double bond geometry as shown.



L27 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:68672 CAPLUS Full-text
DOCUMENT NUMBER: 104:68672
TITLE: Cephalosporin derivatives
INVENTOR(S): Lattrell, Rudolf; Blumbach, Juergen; Duerckheimer, Walter; Schwab, Wilfried; Seibert, Gerhard
PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 28 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
DE 3336757	A1	19850425	DE 1983-3336757		19831008
EP 137441	A2	19850417	EP 1984-111745		19841002
EP 137441	A3	19860115			
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE					
DK 8404799	A	19850409	DK 1984-4799		19841005
JP 60097982	A2	19850531	JP 1984-211207		19841008
PRIORITY APPLN. INFO.:			DE 1983-3336757	A	19831008

OTHER SOURCE(S): CASREACT 104:68672
ED Entered STN: 08 Mar 1986
GI



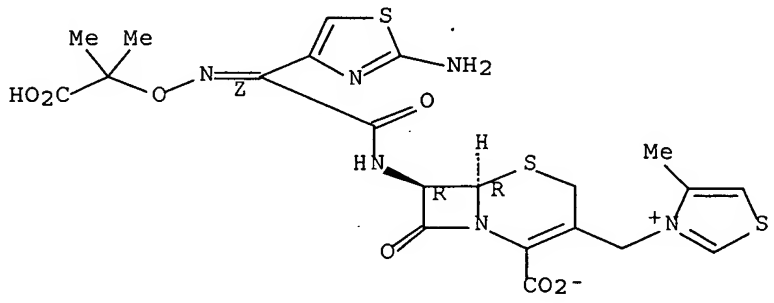
I

AB Cephalosporins I [R = heterocyclic quaternary ammonium; R1 = H, OMe; R2 = H, (un)substituted alkyl, cycloalkyl; R3 = H, halo] were prepared Thus, 0.15 g I (R = thiazolyl, R1 = R3 = H, R2 = Me) was obtained by treating 0.68 g of the acetoxymethylcephem with 1.3 g thiazole in the presence of KI.

IT **97547-09-6P 97900-17-9P 97919-00-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 97547-09-6 CAPLUS

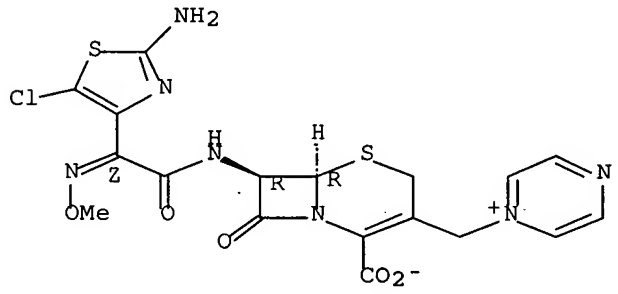
CN Thiazolium, 3-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-methyl-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



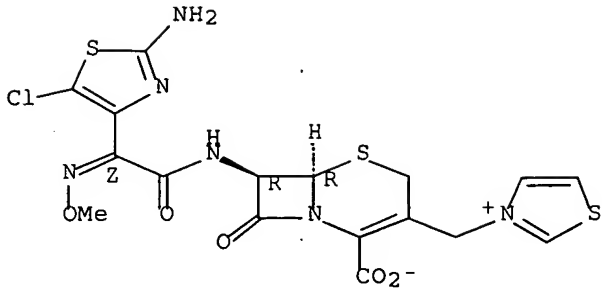
RN 97900-17-9 CAPLUS
CN Pyrazinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



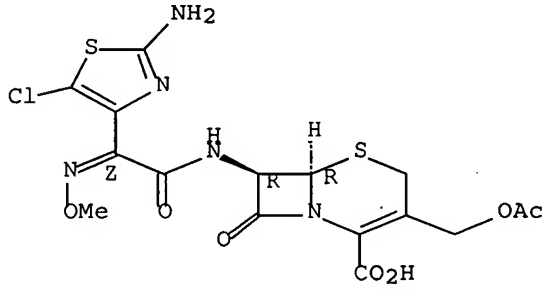
RN 97919-00-1 CAPLUS
CN Thiazolium, 3-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT 71445-31-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nitrogen heterocycles)
RN 71445-31-3 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[(acetyloxy)methyl]-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



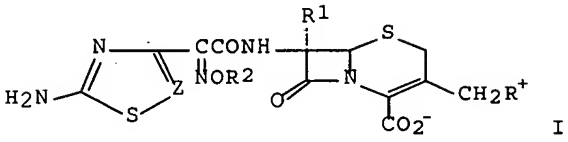
L27 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:615071 CAPLUS Full-text
DOCUMENT NUMBER: 103:215071
TITLE: Cephalosporin derivatives
INVENTOR(S): Fleischmann, Klaus; Duerckheimer, Walter; Lattrell, Rudolf; Schwab, Wilfried; Seeger, Karl
PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen.; 39 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3409431	A1	19850418	DE 1984-3409431	19840315
EP 137440	A2	19850417	EP 1984-111744	19841002
EP 137440	A3	19860108		

R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE

HU 37152	O	19851128	HU 1984-3726		19841002
HU 37152	A2	19851128			
HU 190878	B	19861128			
DK 8404796	A	19850409	DK 1984-4796		19841005
FI 8403933	A	19850409	FI 1984-3933		19841005
NO 8404006	A	19850409	NO 1984-4006		19841005
AU 8433883	A1	19850418	AU 1984-33883		19841005
ZA 8407825	A	19850529	ZA 1984-7825		19841005
ES 536550	A1	19851216	ES 1984-536550		19841005
JP 60097983	A2	19850531	JP 1984-211208		19841008
PRIORITY APPLN. INFO.:			DE 1983-3336756	A1	19831008
			DE 1984-3409431	A	19840315

ED Entered STN: 28 Dec 1985
GI



I

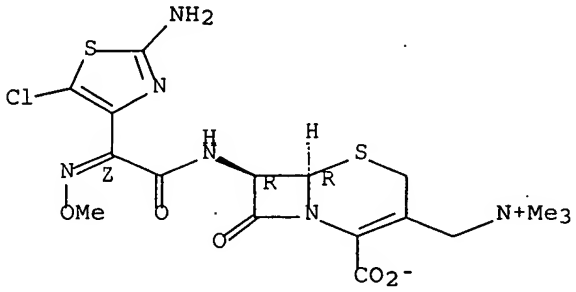
AB Cephalosporins I [Z = CH, CF, CCl, CBr, N; R = tertiary amine; R1 = H, OMe; R2 = H, (un)substituted alkyl, cycloalkyl] were prepared Thus, I (Z = CH, R = NEt3, R1 = H, R2 = Me) was obtained in 39.5% yield by iodinating the acetoxymethylcephem with CF3CONMeSiMe3 and Me3SiI and treating the iodomethylcephem with NEt3.

IT **98355-78-3P 98355-79-4P 98355-80-7P**
98355-81-8P 98355-84-1P 98355-86-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 98355-78-3 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-3-methanaminium, 7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-N,N,N-trimethyl-8-oxo-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

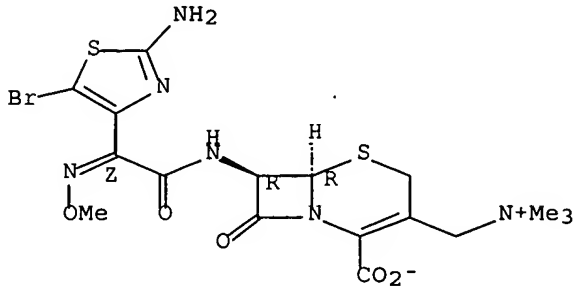


RN 98355-79-4 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-3-methanaminium, 7-[[(2-amino-5-bromo-

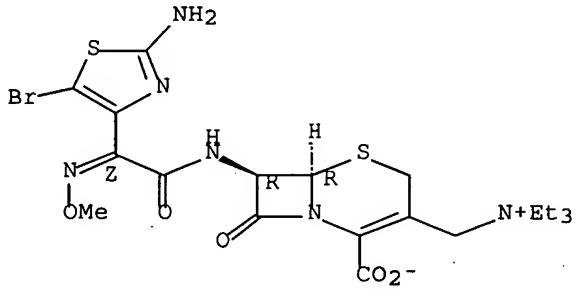
4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-N,N,N-trimethyl-8-oxo-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



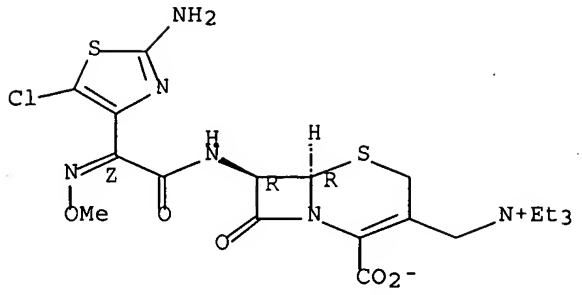
RN 98355-80-7 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-3-methanaminium, 7-[[(2-amino-5-bromo-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-N,N,N-triethyl-8-oxo-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



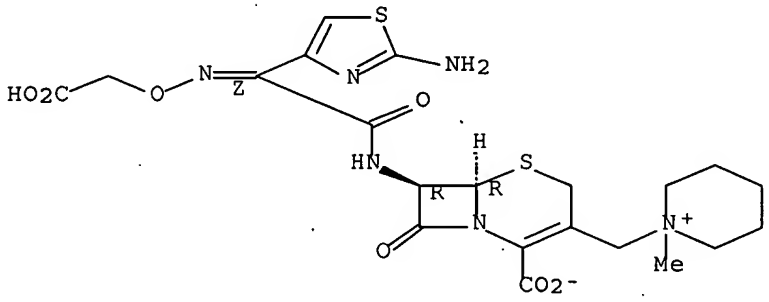
RN 98355-81-8 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-3-methanaminium, 7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-N,N,N-triethyl-8-oxo-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



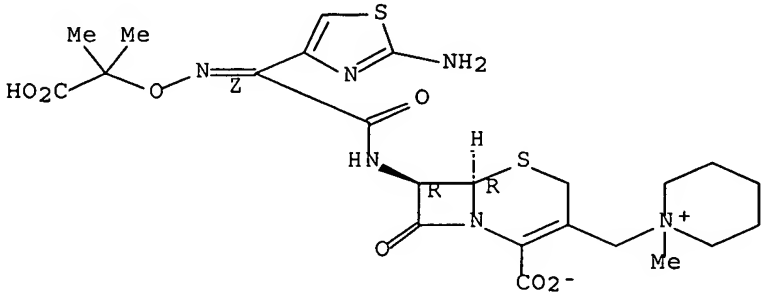
RN 98355-84-1 CAPLUS
CN Piperidinium, 1-[[7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-1-methyl-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 98355-86-3 CAPLUS
CN Piperidinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-1-methyl-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

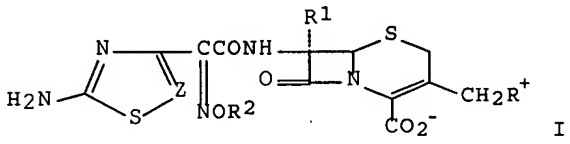


L27 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1985:560295 CAPLUS Full-text
DOCUMENT NUMBER: 103:160295
TITLE: Cephalosporin derivatives
INVENTOR(S): Fleischmann, Klaus; Duerckheimer, Walter; Lattrell, Rudolf; Schwab, Wilfried; Seeger, Karl
PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 43 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 137440	A2	19850417	EP 1984-111744		19841002
EP 137440	A3	19860108			
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE					
DE 3409431	A1	19850418	DE 1984-3409431		19840315
PRIORITY APPLN. INFO.:			DE 1983-3336756	A	19831008
			DE 1984-3409431	A	19840315

OTHER SOURCE(S): MARPAT 103:160295
ED Entered STN: 16 Nov 1985
GI



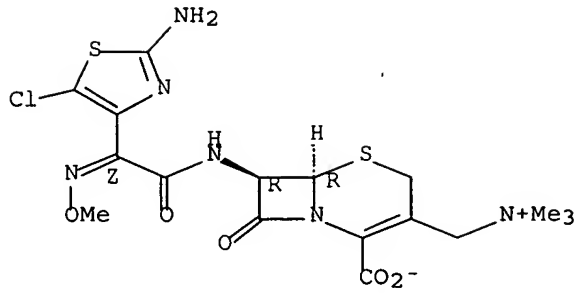
I

AB Cephalosporins I [Z = CH, CF, CCl, CBr, N; R = tertiary amino; R1 = H, OMe; R2 = H, (un)substituted alkyl, cycloalkyl] were prepared Thus, I (Z = CH, R = NEt3, R1 = H, R2 = Me) was prepared by treating the 3-acetoxymethylcephem with NEt3.

IT **98355-78-3P 98355-79-4P 98355-80-7P**
98355-81-8P 98355-84-1P 98355-86-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

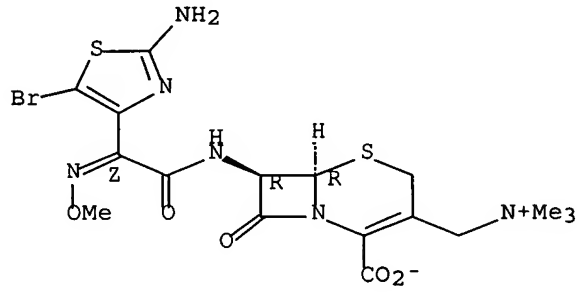
RN 98355-78-3 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-3-methanaminium, 7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-N,N,N-trimethyl-8-oxo-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



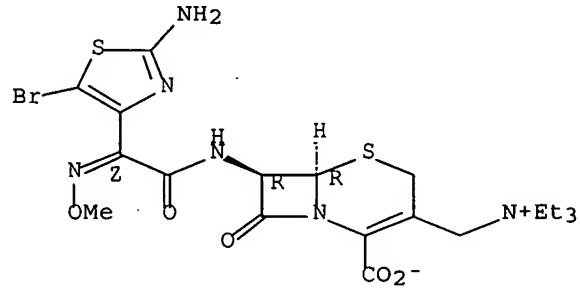
RN 98355-79-4 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-3-methanaminium, 7-[[(2-amino-5-bromo-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-N,N,N-trimethyl-8-oxo-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 98355-80-7 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-3-methanaminium, 7-[[(2-amino-5-bromo-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-N,N,N-triethyl-8-oxo-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

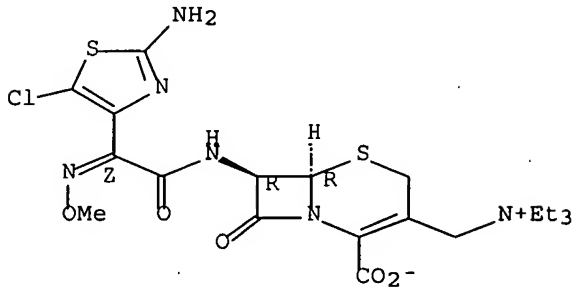
Absolute stereochemistry.
Double bond geometry as shown.



RN 98355-81-8 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-3-methanaminium, 7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-N,N,N-triethyl-8-oxo-,

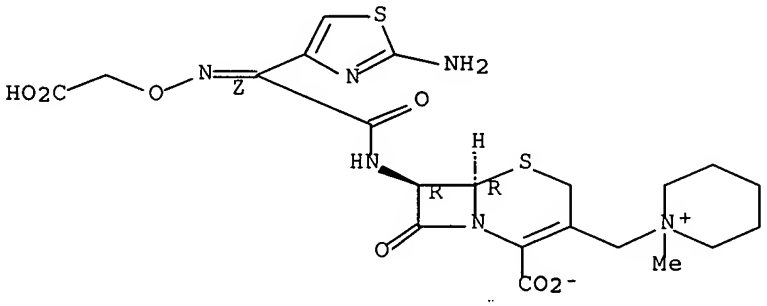
inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



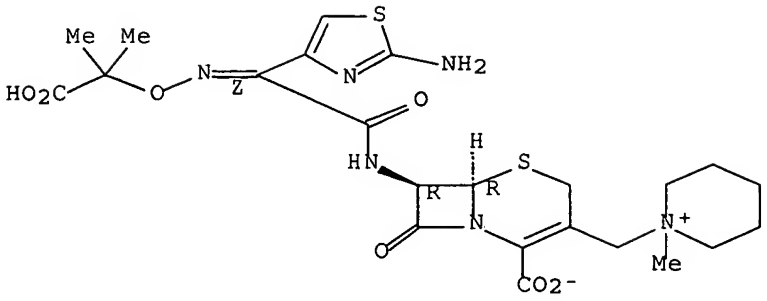
RN 98355-84-1 CAPLUS
CN Piperidinium, 1-[[7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-1-methyl-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 98355-86-3 CAPLUS
CN Piperidinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-1-methyl-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

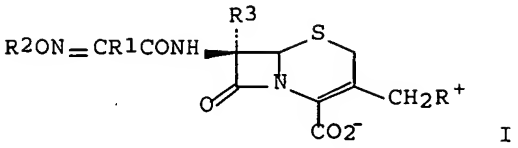


L27 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:113173 CAPLUS Full-text
DOCUMENT NUMBER: 102:113173
TITLE: Cephem compounds
INVENTOR(S): Kirrstetter, Reiner; Duerckheimer, Walter; Lattrell, Rudolf; Schwab, Wilfried
PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 29 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

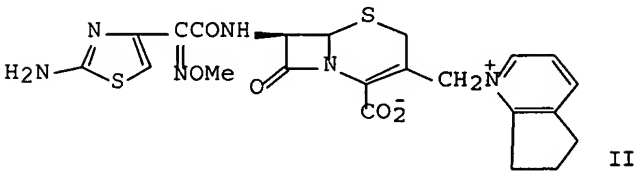
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3316797	A1	19841108	DE 1983-3316797	19830507
HU 34507	A2	19850328	HU 1984-1703	19840502
HU 192984	B	19870828		
FI 8401765	A	19841108	FI 1984-1765	19840503
FI 82056	B	19900928		
FI 82056	C	19910110		
AU 8427706	A1	19841108	AU 1984-27706	19840504
AU 575826	B2	19880811		
DK 8402243	A	19841108	DK 1984-2243	19840504
DK 165836	B	19930125		
DK 165836	C	19930621		
NO 8401793	A	19841108	NO 1984-1793	19840504
EP 125576	A2	19841121	EP 1984-105024	19840504
EP 125576	A3	19851016		
EP 125576	B1	19890419		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
ES 532176	A1	19841216	ES 1984-532176	19840504
ZA 8403339	A	19841224	ZA 1984-3339	19840504
DD 219195	A5	19850227	DD 1984-262710	19840504
CS 247080	B2	19861113	CS 1984-3302	19840504
CA 1224458	A1	19870721	CA 1984-453604	19840504
AT 42296	E	19890515	AT 1984-105024	19840504
IL 71772	A1	19881130	IL 1984-71772	19840506
JP 60034973	A2	19850222	JP 1984-90843	19840507
JP 07023379	B4	19950315		
US 4692516	A	19870908	US 1984-607593	19840507
PRIORITY APPLN. INFO.:			DE 1983-3316797 A	19830507
			EP 1984-105024 A	19840504

OTHER SOURCE(S): CASREACT 102:113173

ED Entered STN: 06 Apr 1985
GI



I



II

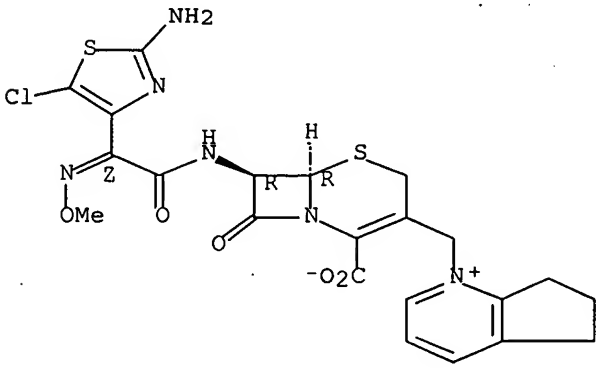
AB Pyridiniummethylcephems I [R = (un)substituted quinoline, isoquinoline, pyridine, cycloalkapyridine; R1 = aminothiazolyl, amino-1,2,4-thiadiazolyl; R2 = H, (un)substituted alkyl, cycloalkyl; R3 = H, OMe] were prepared Thus II was obtained in 69% yield by treating the acetoxymethylcephem with cyclopentapyridine in the presence of Me3SiI and KI.

IT **84982-50-3P 95055-25-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 84982-50-3 CAPLUS

CN 5H-Cyclopenta[b]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6,7-dihydro-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

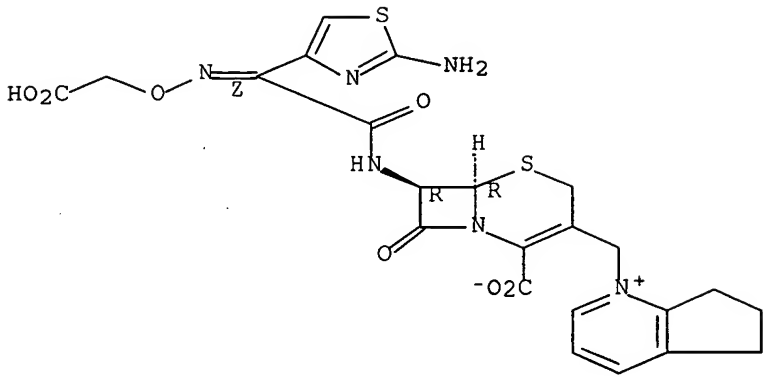


RN 95055-25-7 CAPLUS

CN 5H-Cyclopenta[b]pyridinium, 1-[[7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-6,7-dihydro-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

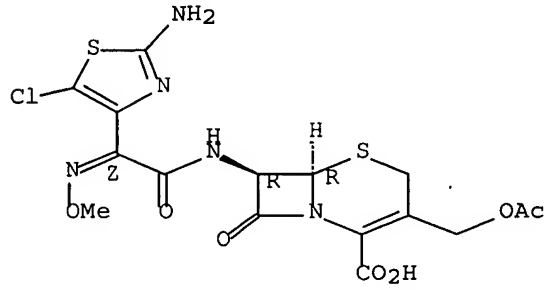
Absolute stereochemistry.

Double bond geometry as shown.



IT **71445-31-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyclopentapyridine)
RN 71445-31-3 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[(acetyloxy)methyl]-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

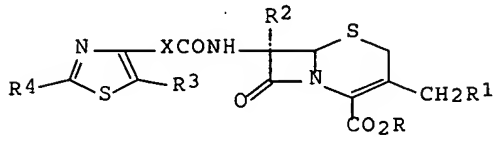
Absolute stereochemistry.
Double bond geometry as shown.



L27 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:24353 CAPLUS Full-text
DOCUMENT NUMBER: 102:24353
TITLE: Cephalosporins and their use
INVENTOR(S): Sadaki, Hiroshi; Imaizumi, Hiroyuki; Nagai, Takashi; Takeda, Kenji; Myokan, Isao; Inaba, Takihiro; Watanabe, Yasuo; Fukuoka, Yoshikazu; Minami, Shinzaburo; Saikawa, Isamu
PATENT ASSIGNEE(S): Toyama Chemical Co., Ltd. , Japan
SOURCE: Ger. Offen., 252 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
DE 3341591	A1	19840517	DE 1983-3341591		19831117
DE 3341591	C2	19880407			
JP 59093085	A2	19840529	JP 1982-200382		19821117
JP 03057913	B4	19910903			
JP 59193893	A2	19841102	JP 1983-67871		19830419
JP 04054676	B4	19920831			
JP 60092293	A2	19850523	JP 1983-199945		19831027
JP 05027637	B4	19930421			
DK 8305218	A	19840518	DK 1983-5218		19831115
FI 8304183	A	19840518	FI 1983-4183		19831115
FI 75827	B	19880429			
FI 75827	C	19880808			
GB 2131800	A1	19840627	GB 1983-30599		19831116
GB 2131800	B2	19860709			
AU 8321429	A1	19850523	AU 1983-21429		19831116
AU 549861	B2	19860220			
ES 527333	A1	19851201	ES 1983-527333		19831116
ES 527333	A5	19851231			
CH 657135	A	19860815	CH 1983-6165		19831116
US 4618606	A	19861021	US 1983-552468		19831116
CH 660010	A	19870313	CH 1986-1315		19831116
CA 1253486	A1	19890502	CA 1983-441286		19831116
BE 898249	A1	19840516	BE 1983-211891		19831117
FR 2536074	A1	19840518	FR 1983-18293		19831117
FR 2536074	B1	19860905			
NL 8303955	A	19840618	NL 1983-3955		19831117
NL 192792	B	19971001			
NL 192792	C	19980203			
DE 3347928	C2	19930506	DE 1983-3347928		19831117
ES 544723	A1	19860516	ES 1985-544723		19850628
ES 544724	A1	19860516	ES 1985-544724		19850628
AU 8547421	A1	19860102	AU 1985-47421		19850912
AU 565648	B2	19870924			
GB 2171697	A1	19860903	GB 1986-3333		19860211
GB 2171697	B2	19870701			
CA 1276139	A2	19901113	CA 1986-504319		19860317
US 4717767	A	19880105	US 1986-860317		19860722
PRIORITY APPLN. INFO.:			JP 1982-200382	A	19821117
			JP 1983-67871	A	19830419
			JP 1983-199945	A	19831027
			CA 1983-441286	A3	19831116
			CH 1983-6165	A	19831116
			GB 1983-30599	A3	19831116
			US 1983-552468	A3	19831116

OTHER SOURCE(S): CASREACT 102:24353; MARPAT 102:24353
ED Entered STN: 26 Jan 1985
GI



I

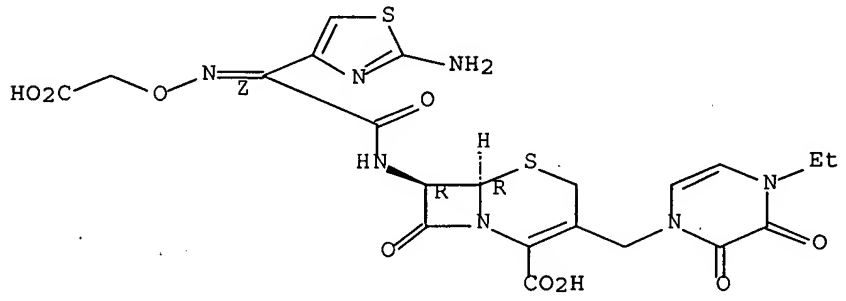
AB Cephalosporins I [X = CH2, (un)substituted C:NOH; R = H, protective group; R1 = (un)substituted (di)oxopyrazinyl, (di)oxopyridazinyl; R2 = H, alkoxy; R3 = H, halogen; R4 = H, (un)protected NH2] were prepared Thus (EtO)2CHCH2NHCOCO2Et was amidated to give (EtO)2CHCH2NHCOCONHEt which was cyclized with acid to give 4-ethyl-1,2,3,4-tetrahydropyrazine-2,3-dione (II). 7-Aminocephalosporanic acid was treated with II to give the pyrazinylmethylcephem which was esterified and acylated to give I [R = CHPh2, R1 = 4-ethyl-2,3-dioxo-1,2,3,4-tetrahydropyrazin-1-yl (Q), R2 = R3 = H, R4 = NHCHO, X = C:NOH, III). Deformylation and ester hydrolysis of III gave I.CF3CO2H (R = R2 = R3 = H, R1 = Q, R4 = NH2, X = C:NOH) which had min. inhibitory concns. against a series of gram-neg. organisms of ≤0.1 μg/mL.

IT **92732-91-7P 92732-94-0P 92732-95-1P**
92732-96-2P 92732-97-3P 92732-98-4P
92733-03-4P 92733-04-5P 92733-05-6P
92733-06-7P 92733-37-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and bactericidal activity of)

RN 92732-91-7 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[(4-ethyl-3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

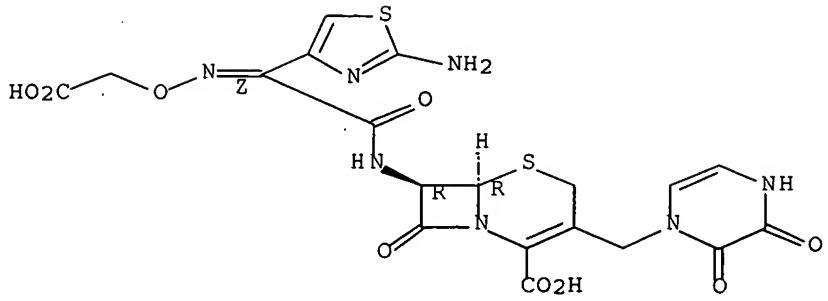
Absolute stereochemistry.
Double bond geometry as shown.



RN 92732-94-0 CAPLUS

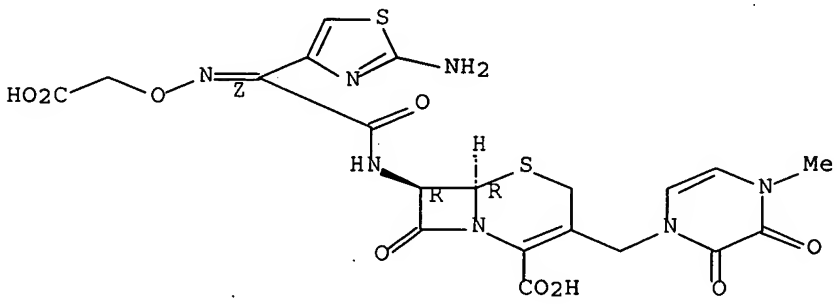
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[(3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 92732-95-1 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[(3,4-dihydro-4-methyl-2,3-dioxo-1(2H)-pyrazinyl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

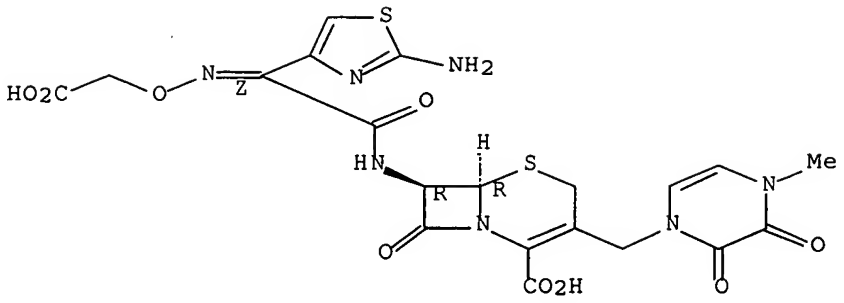


RN 92732-96-2 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[(3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

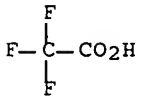
CRN 92732-95-1
CMF C20 H19 N7 O9 S2

Absolute stereochemistry.
Double bond geometry as shown.



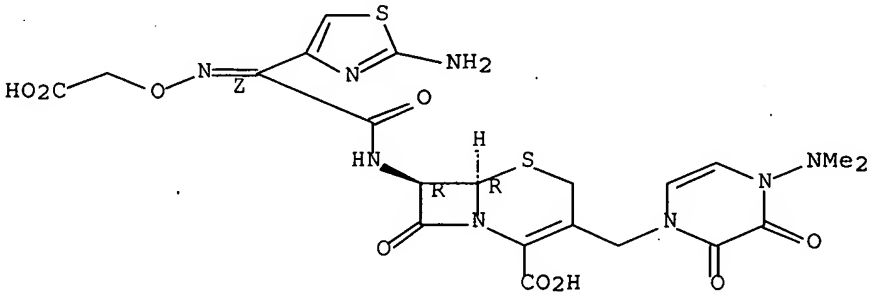
CM 2

CRN 76-05-1
CMF C2 H F3 O2



RN 92732-97-3 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[4-(dimethylamino)-3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



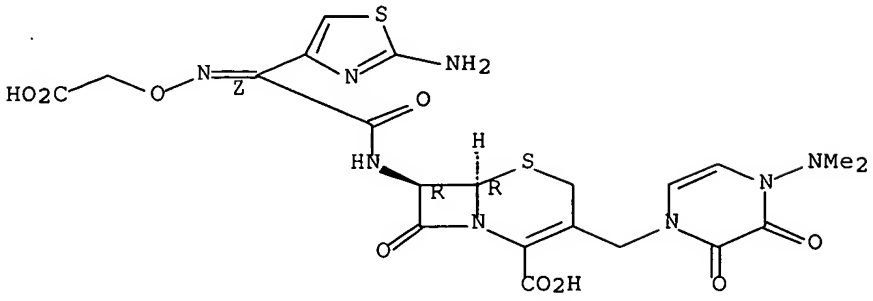
RN 92732-98-4 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[4-(dimethylamino)-3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 92732-97-3

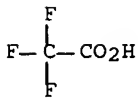
CMF C21 H22 N8 O9 S2

Absolute stereochemistry.
Double bond geometry as shown.



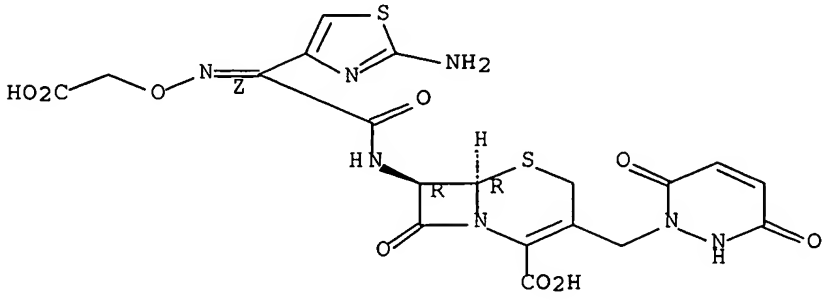
CM 2

CRN 76-05-1
CMF C2 H F3 O2



RN 92733-03-4 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[(3,6-dihydro-3,6-dioxo-1(2H)-pyridazinyl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



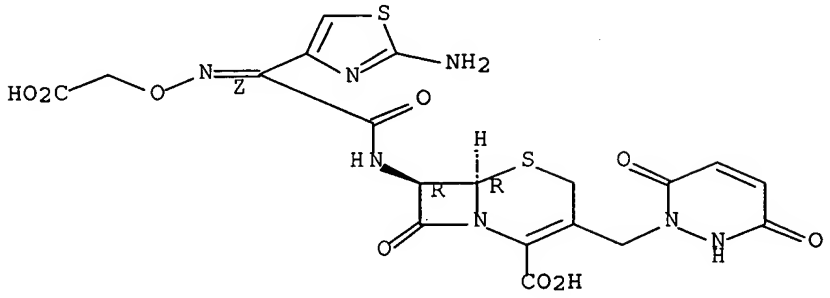
RN 92733-04-5 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[(3,6-dihydro-3,6-dioxo-1(2H)-pyridazinyl)methyl]-8-oxo-, [6R-

[6α,7β(Z)]]-, monoformate (9CI) (CA INDEX NAME)

CM 1

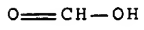
CRN 92733-03-4
CMF C19 H17 N7 O9 S2

Absolute stereochemistry.
Double bond geometry as shown.



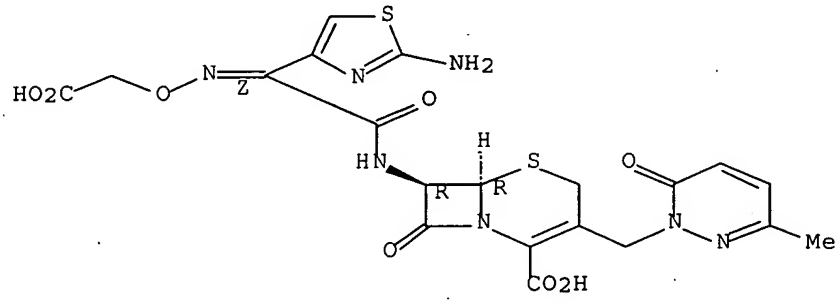
CM 2

CRN 64-18-6
CMF C H2 O2



RN 92733-05-6 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[(3-methyl-6-oxo-1(6H)-pyridazinyl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



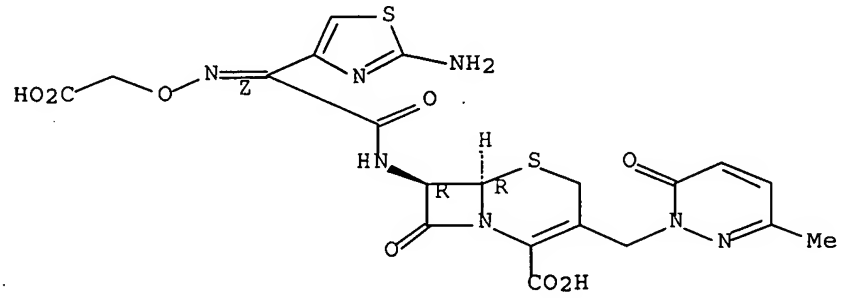
RN 92733-06-7 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,

7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[(3-methyl-6-oxo-1(6H)-pyridazinyl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]-, monoformate (9CI) (CA INDEX NAME)

CM 1

CRN 92733-05-6
CMF C20 H19 N7 O8 S2

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

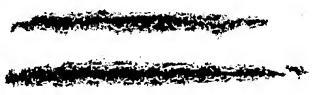
CRN 64-18-6
CMF C H2 O2

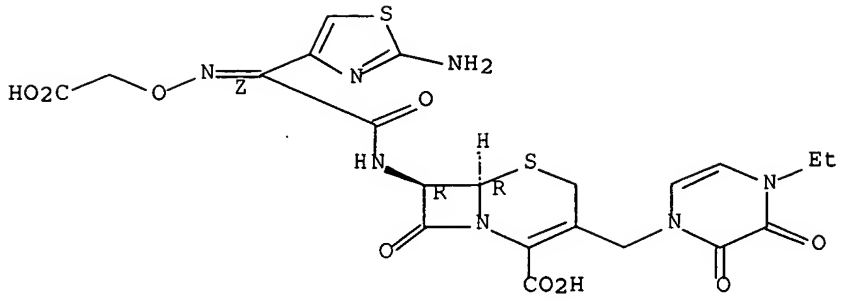
RN 92733-37-4 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[(4-ethyl-3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 92732-91-7
CMF C21 H21 N7 O9 S2

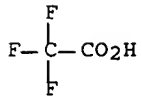
Absolute stereochemistry.
Double bond geometry as shown.





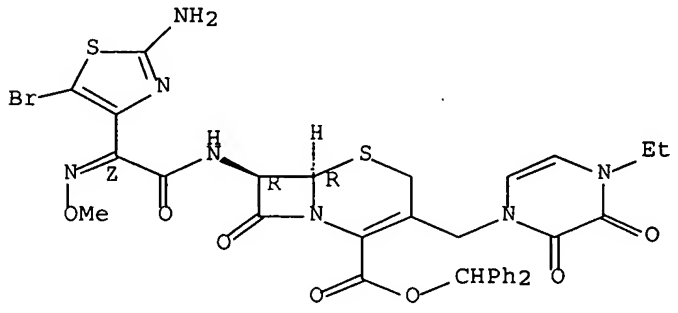
CM 2

CRN 76-05-1
CMF C2 H F3 O2



IT **92732-27-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 92732-27-9 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-bromo-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[(4-ethyl-3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl)methyl]-8-oxo-, diphenylmethyl ester, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



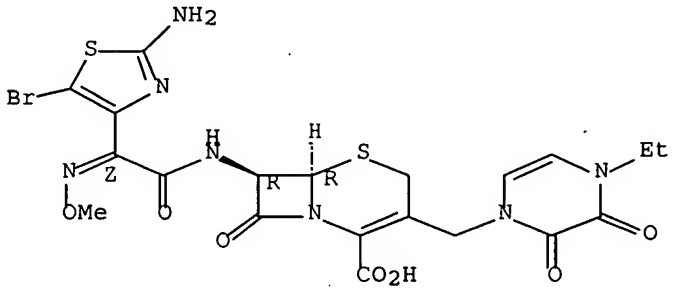
IT **92732-43-9P 92732-93-9P 92732-99-5P**
92733-00-1P 92733-01-2P 92733-02-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 92732-43-9 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-bromo-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[(4-ethyl-3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

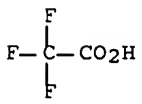
CRN 92732-42-8
CMF C20 H20 Br N7 O7 S2

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 76-05-1
CMF C2 H F3 O2

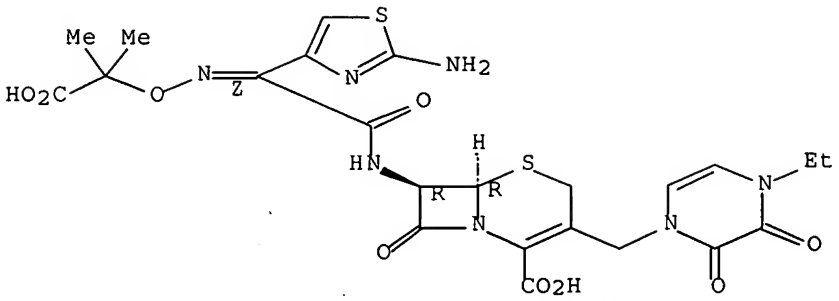


RN 92732-93-9 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-3-[(4-ethyl-3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl)methyl]-8-oxo-, [6R-[6α,7β(Z)]]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

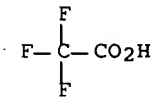
CRN 92732-92-8
CMF C23 H25 N7 O9 S2

Absolute stereochemistry.
Double bond geometry as shown.



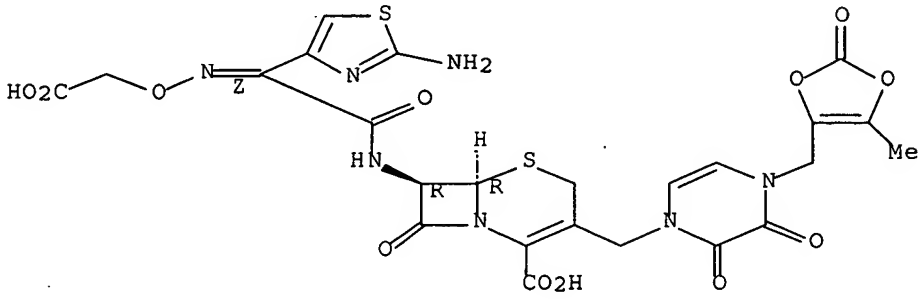
CM 2

CRN 76-05-1
CMF C2 H F3 O2



RN 92732-99-5 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[3,4-dihydro-4-[(5-methyl-2-oxo-1,3-dioxol-4-yl)methyl]-2,3-dioxo-1(2H)-pyrazinyl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

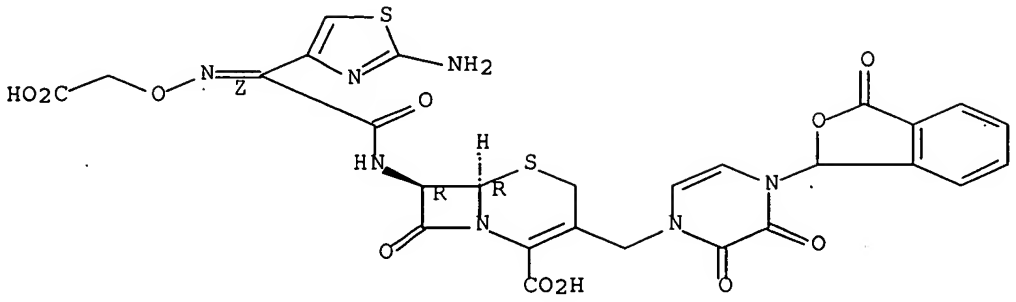
Absolute stereochemistry.
Double bond geometry as shown.



RN 92733-00-1 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[4-(1,3-dihydro-3-oxo-1-isobenzofuranyl)-3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

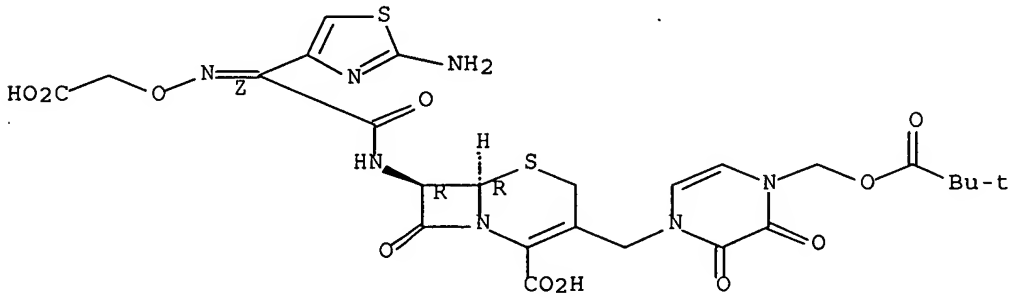
Absolute stereochemistry.

Double bond geometry as shown.



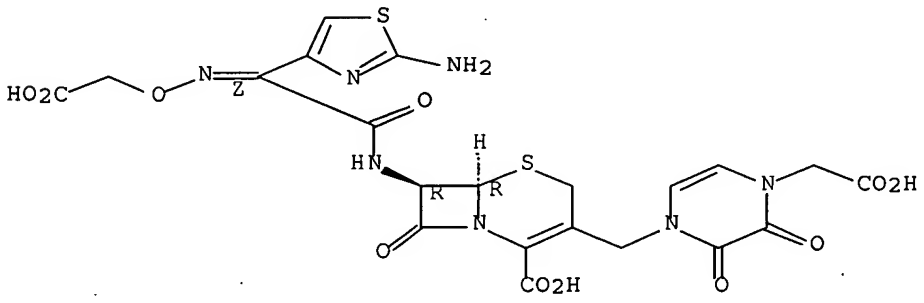
RN 92733-01-2 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[4-[(2,2-dimethyl-1-oxopropoxy)methyl]-3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 92733-02-3 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[4-(carboxymethyl)-3,4-dihydro-2,3-dioxo-1(2H)-pyrazinyl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

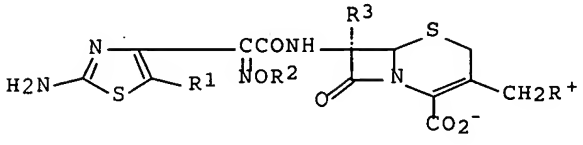


L27 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:591529 CAPLUS Full-text
DOCUMENT NUMBER: 101:191529
TITLE: Cephalosporin derivatives
INVENTOR(S): Lattrell, Rudolf; Kirrstetter, Reiner; Duerckheimer, Walter; Schwab, Wilfried; Klesel, Norbert
PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 36 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3247614	A1	19840705	DE 1982-3247614	19821223
HU 34036	O	19850128	HU 1983-4332	19831219
HU 189792	B	19860728		
FI 8304710	A	19840624	FI 1983-4710	19831221
EP 111935	A2	19840627	EP 1983-112860	19831221
EP 111935	A3	19850703		
EP 111935	B1	19881012		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
ES 528247	A1	19840801	ES 1983-528247	19831221
DD 216026	A5	19841128	DD 1983-258350	19831221
AT 37881	E	19881015	AT 1983-112860	19831221
DK 8305943	A	19840624	DK 1983-5943	19831222
NO 8304775	A	19840625	NO 1983-4775	19831222
AU 8322809	A1	19840628	AU 1983-22809	19831222
JP 59130294	A2	19840726	JP 1983-243058	19831222
ZA 8309526	A	19840829	ZA 1983-9526	19831222
CS 249132	B2	19870312	CS 1983-9807	19831222

PRIORITY APPLN. INFO.: DE 1982-3247614 A 19821223
EP 1983-112860 A 19831221

ED Entered STN: 25 Nov 1984
GI



I

AB Cephalosporins I [R = (un)substituted quinoline, isoquinoline; R1 = H, halogen; R2 = H, (un)substituted C2-6 alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl; R3 = H, OMe] were prepared Thus, I (R = isoquinoline, R1 = R3 = H, R2 = Me) was prepared in 45% yield from the corresponding acetoxymethylcephem and isoquinoline.

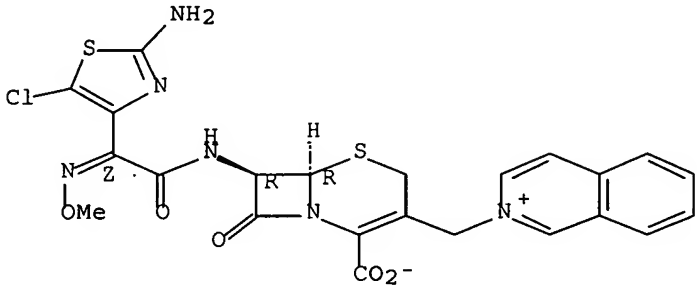
IT **92737-96-7P 92737-97-8P 92737-98-9P**
92737-99-0P 92738-17-5P 92738-18-6P

92738-19-7P 92738-20-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 92737-96-7 CAPLUS

CN Isoquinolinium, 2-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

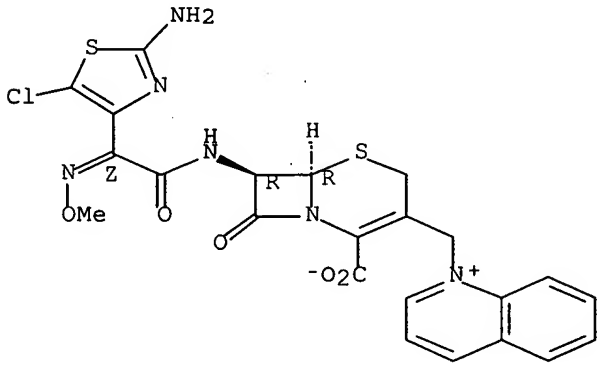
Absolute stereochemistry.
Double bond geometry as shown.



RN 92737-97-8 CAPLUS

CN Quinolinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

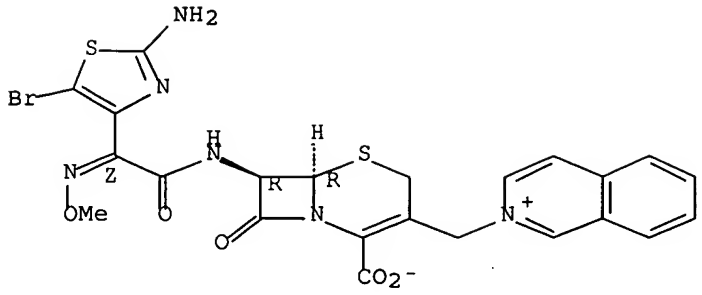
Absolute stereochemistry.
Double bond geometry as shown.



RN 92737-98-9 CAPLUS

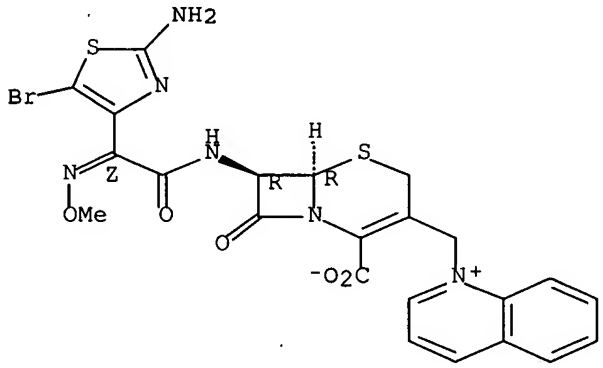
CN Isoquinolinium, 2-[[7-[[(2-amino-5-bromo-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



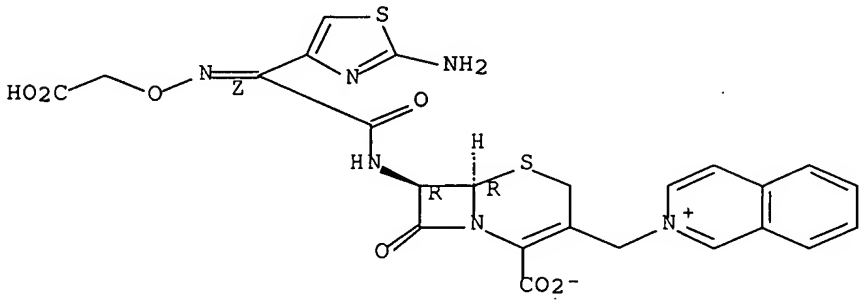
RN 92737-99-0 CAPLUS
CN Quinolinium, 1-[[7-[[(2-amino-5-bromo-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 92738-17-5 CAPLUS
CN Isoquinolinium, 2-[[7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

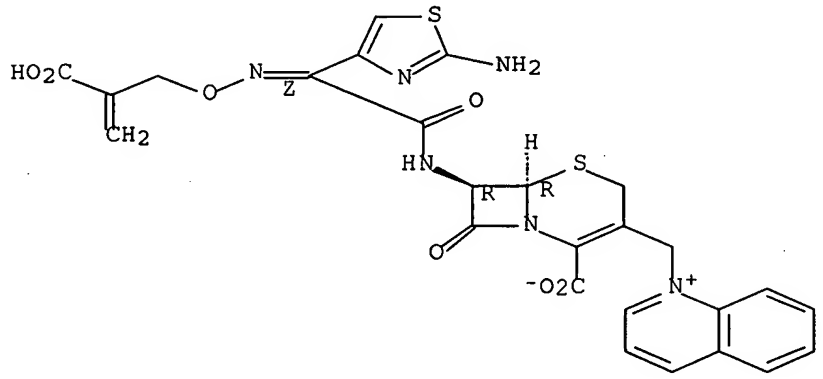
Absolute stereochemistry.
Double bond geometry as shown.



RN 92738-18-6 CAPLUS

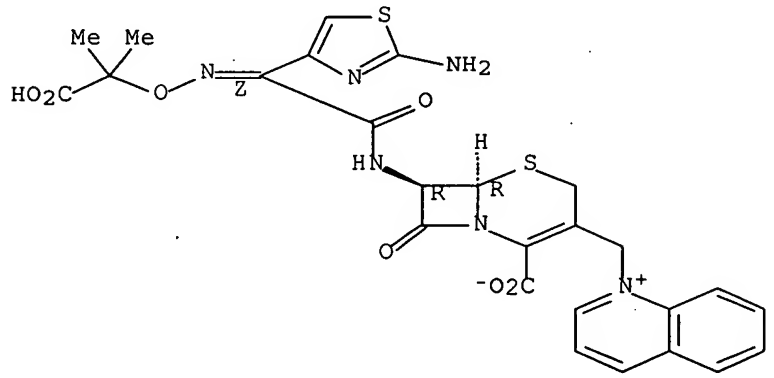
CN Quinolinium, 1-[[7-[[(2-amino-4-thiazolyl)[[(2-carboxy-2-propenyl)oxy]imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



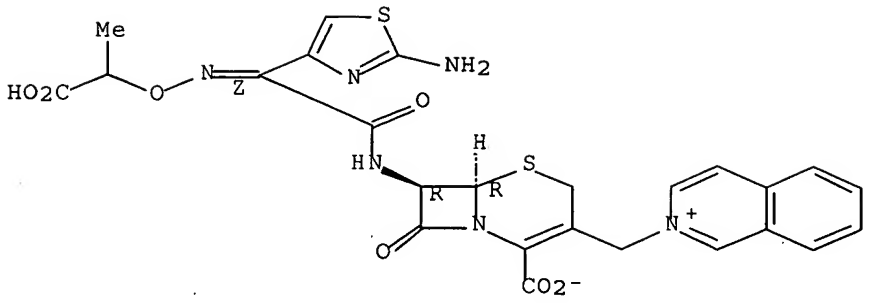
RN 92738-19-7 CAPLUS
CN Quinolinium, 1-[[7-[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 92738-20-0 CAPLUS
CN Isoquinolinium, 2-[[7-[[(2-amino-4-thiazolyl)[(1-carboxyethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

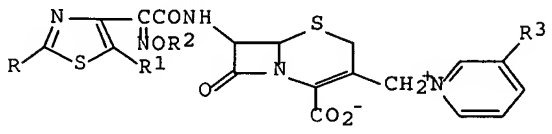
Absolute stereochemistry.
Double bond geometry as shown.



L27 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1983:453475 CAPLUS Full-text
DOCUMENT NUMBER: 99:53475
TITLE: Cephem compounds and pharmaceutical antibacterial composition containing them
INVENTOR(S): Teraji, Tsutomu; Sakane, Kazuo; Goto, Jiro
PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd. , Japan
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 74645	A2	19830323	EP 1982-108384	19820911
EP 74645	A3	19840613		
EP 74645	B1	19870408		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 58059991	A2	19830409	JP 1982-155754	19820906
JP 03054111	B4	19910819		
US 4550102	A	19851029	US 1982-415910	19820908
PRIORITY APPLN. INFO.:			GB 1981-27664 A	19810914

OTHER SOURCE(S): MARPAT 99:53475
ED Entered STN: 12 May 1984
GI



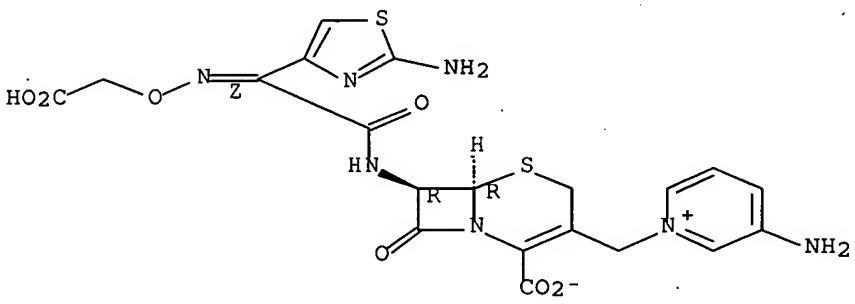
I

AB Cephems I [R,R3 = (un) protected NH2; R1 = H, halogen; R2 = (un)substituted aliphatic] were prepared Thus, I (R = R3 = NHCHO, R1 = H, R2 = Me) was obtained by treating the acetoxymethyl cephem with 3-formamidopyridine and was deformylated to I (R = R3 = NH2, R1 = H, R2 = Me) which had a min. inhibitory concentration against Escherichia coli of <0.025 mg/mL.

IT **86507-45-1P 86507-49-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

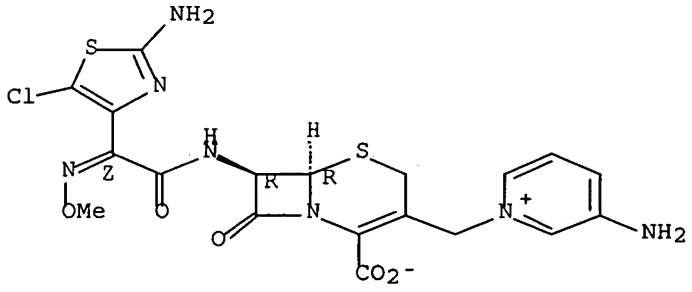
RN 86507-45-1 CAPLUS
CN Pyridinium, 3-amino-1-[[7-[[(2-amino-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 86507-49-5 CAPLUS
CN Pyridinium, 3-amino-1-[[7-[[(2-amino-5-chloro-4-thiazolyl)(methoxyimino)acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

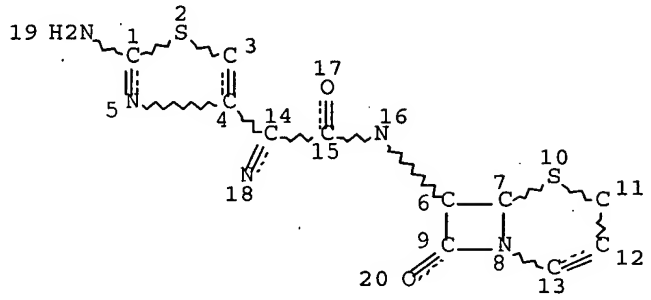
Absolute stereochemistry.
Double bond geometry as shown.



FILE 'HOME' ENTERED AT 16:06:04 ON 19 OCT 2006

SEARCH HISTORY

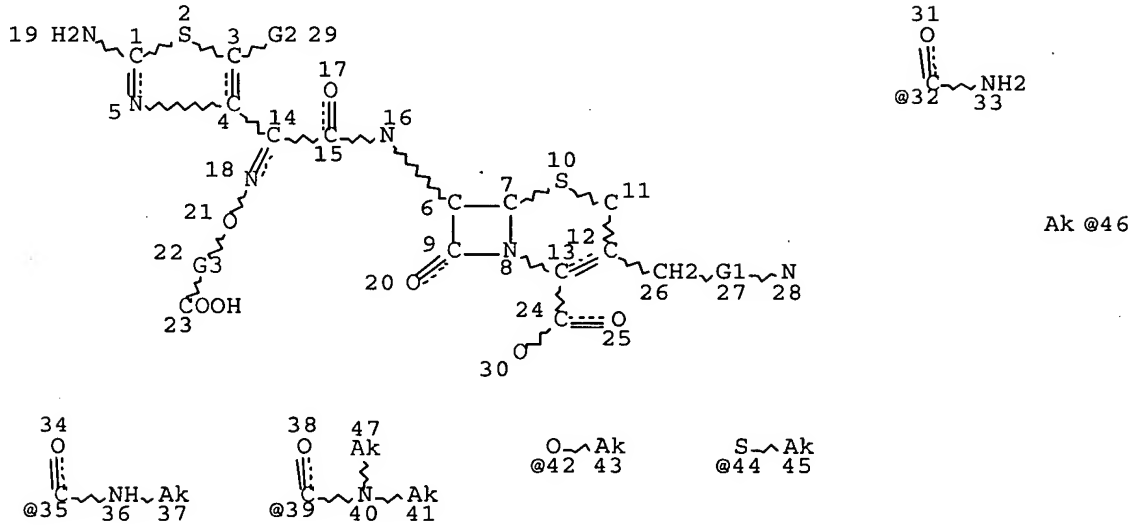
=> d stat que l10; d stat que l21; d stat que l23; d his nofile
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L3 19554 SEA FILE=REGISTRY SSS FUL L1
L6 STR

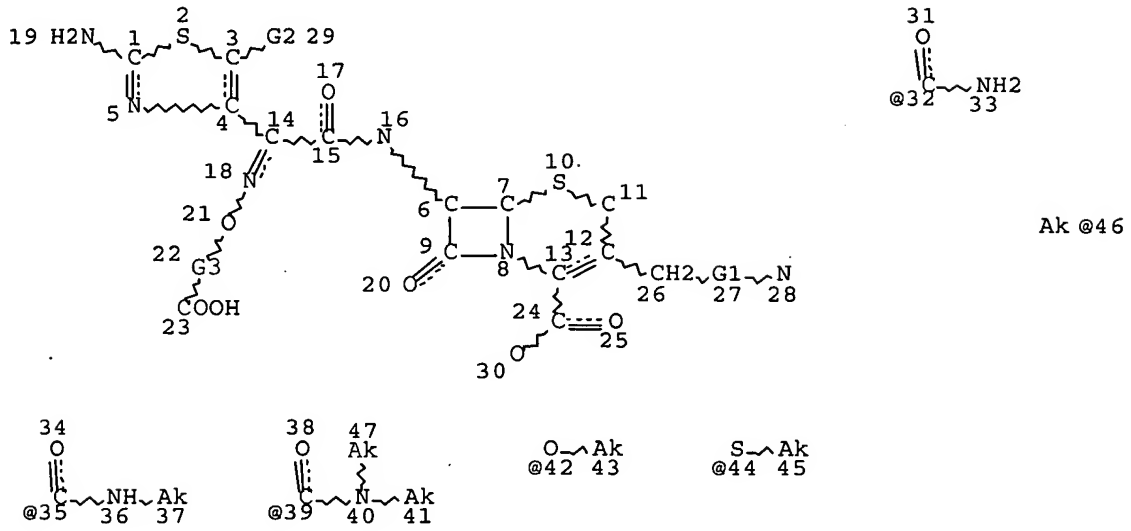


REP G1=(0-6) A
VAR G2=X/CN/32/35/39/42/44/46
REP G3=(1-6) C
NODE ATTRIBUTES:
NSPEC IS R AT 28
CONNECT IS E1 RC AT 37
CONNECT IS E1 RC AT 41
CONNECT IS E1 RC AT 43
CONNECT IS E1 RC AT 45
CONNECT IS E1 RC AT 46

CONNECT IS E1 RC AT 47
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE
L8 STR



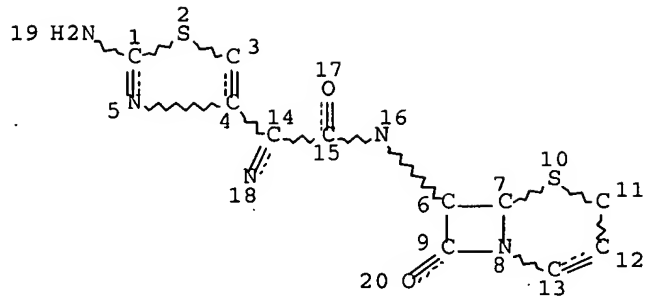
REP G1=(0-6) A
VAR G2=X/CN/32/35/39/42/44/46
REP G3=(1-6) CH2
NODE ATTRIBUTES:
NSPEC IS R AT 28
CONNECT IS E1 RC AT 37
CONNECT IS E1 RC AT 41
CONNECT IS E1 RC AT 43
CONNECT IS E1 RC AT 45
CONNECT IS E1 RC AT 46
CONNECT IS E1 RC AT 47
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE
L10 194 SEA FILE=REGISTRY SUB=L3 SSS FUL (L6 NOT L8)

100.0% PROCESSED 5029 ITERATIONS 194 ANSWERS
SEARCH TIME: 00.00.01

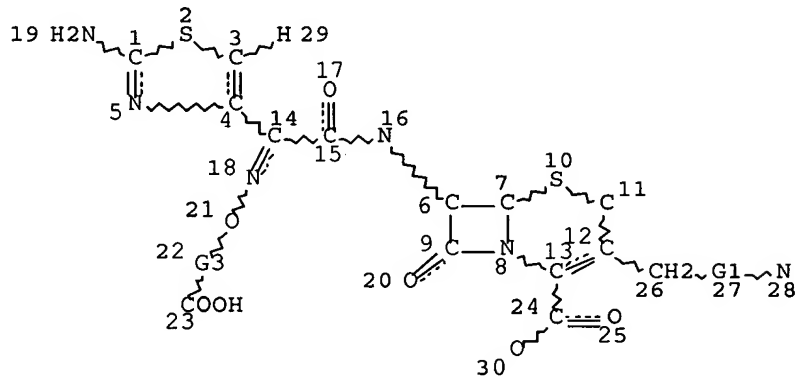
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L3 19554 SEA FILE=REGISTRY SSS FUL L1
L18 STR



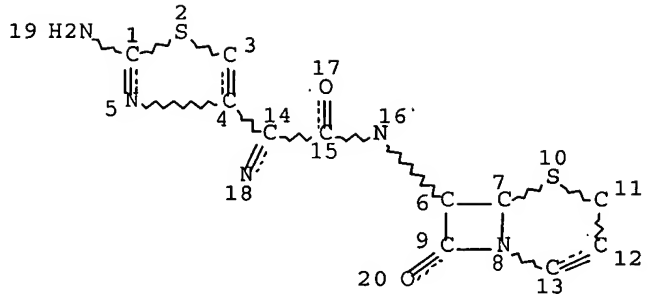
REP G1=(0-6) A
REP G3=(1-6) C
NODE ATTRIBUTES:
NSPEC IS R AT 28
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE
L21 784 SEA FILE=REGISTRY SUB=L3 SSS FUL L18

100.0% PROCESSED 5027 ITERATIONS 784 ANSWERS
SEARCH TIME: 00.00.01

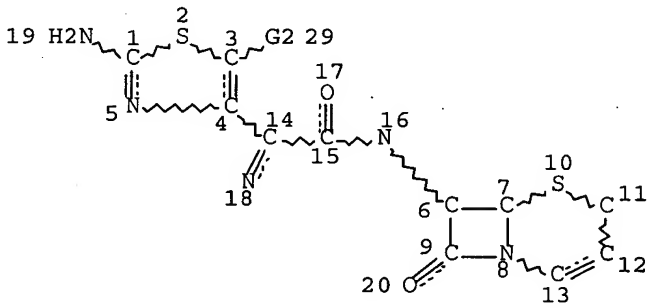
L1 STR

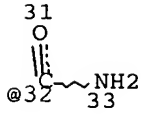


NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

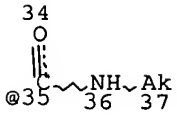
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

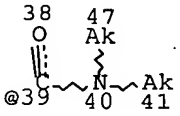
STEREO ATTRIBUTES: NONE
L3 19554 SEA FILE=REGISTRY SSS FUL L1
L19 STR

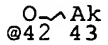


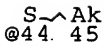


Ak @46









VAR G2=X/CN/32/35/39/42/44/46
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 37
CONNECT IS E1 RC AT 41
CONNECT IS E1 RC AT 43
CONNECT IS E1 RC AT 45
CONNECT IS E1 RC AT 46
CONNECT IS E1 RC AT 47
DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT 37 41 43 45 46 47
DEFAULT ECLEVEL IS LIMITED

```
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  38

STEREO ATTRIBUTES: NONE
L23         956 SEA FILE=REGISTRY SUB=L3 SSS FUL L19

100.0% PROCESSED   19554 ITERATIONS                          956 ANSWERS
SEARCH TIME: 00.00.01



     (FILE 'HOME' ENTERED AT 15:34:08 ON 19 OCT 2006)

     FILE 'REGISTRY' ENTERED AT 15:40:43 ON 19 OCT 2006
L1              STR
L2           50 SEA SSS SAM L1
L3        19554 SEA SSS FUL L1
              SAVE TEMP L3 BER502FULL/A
L4              STR L1
L5            0 SEA SUB=L3 SSS SAM L4
L6              STR L4
L7            6 SEA SUB=L3 SSS SAM L6
              D SCAN
L8              STR L6
L9            6 SEA SUB=L3 SSS SAM (L6 NOT L8)
L10         194 SEA SUB=L3 SSS FUL (L6 NOT L8)
              SAVE TEMP L10 BER502SUB1/A

     FILE 'CAPLUS' ENTERED AT 15:53:43 ON 19 OCT 2006
L11           7 SEA ABB=ON  L10

     FILE 'REGISTRY' ENTERED AT 15:53:58 ON 19 OCT 2006
L12             ANALYZE L10 1- LC :       5 TERMS
                D

     FILE 'STNGUIDE' ENTERED AT 15:55:56 ON 19 OCT 2006

     FILE 'CAPLUS' ENTERED AT 15:57:01 ON 19 OCT 2006
              E US2004-507502/APPS
L13         296 SEA ABB=ON  NISHITANI Y?/AU
L14         417 SEA ABB=ON  YAMANO Y?/AU
L15           1 SEA ABB=ON  L13 AND L14
              D SCAN
              D BIB
L16           1 SEA ABB=ON  L15 AND L11

     FILE 'CAPLUS' ENTERED AT 15:58:42 ON 19 OCT 2006
              D QUE NOS L15
              D IBIB ED ABS HITSTR L15

     FILE 'REGISTRY' ENTERED AT 15:59:14 ON 19 OCT 2006
              D STAT QUE L10

     FILE 'CAPLUS' ENTERED AT 15:59:20 ON 19 OCT 2006
              D QUE NOS L11
L17           6 SEA ABB=ON  L11 NOT L15
              D IBIB ED ABS HITSTR 1-6
```

```
     FILE 'REGISTRY' ENTERED AT 15:59:51 ON 19 OCT 2006
L18              STR L6
L19              STR L6
L*** DEL         STR L18
L20           37 SEA SUB=L3 SSS SAM L18
L21          784 SEA SUB=L3 SSS FUL L18
                 SAVE TEMP L21 BER502SUB2/A
L22           40 SEA SUB=L3 SSS SAM L19
L23          956 SEA SUB=L3 SSS FUL L19
                 SAVE TEMP L23 BER502SUB3/A

     FILE 'CAPLUS' ENTERED AT 16:04:29 ON 19 OCT 2006
L24         4998 SEA ABB=ON  L21
L25          114 SEA ABB=ON  L23
L26           19 SEA ABB=ON  L24 AND L25
L27           16 SEA ABB=ON  L26 AND PATENT/DT

     FILE 'MARPAT' ENTERED AT 16:05:01 ON 19 OCT 2006

     FILE 'REGISTRY' ENTERED AT 16:05:39 ON 19 OCT 2006
               D STAT QUE L21
               D STAT QUE L23

     FILE 'CAPLUS' ENTERED AT 16:05:39 ON 19 OCT 2006
               D QUE NOS L27
               D IBIB ED ABS HITSTR L27 1-16

     FILE 'HOME' ENTERED AT 16:06:04 ON 19 OCT 2006
               D STAT QUE L10
               D STAT QUE L21
               D STAT QUE L23

=>
```